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Journal of the Asiatic
Society of Bengal



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JOURNAL
OF THE
ASIATIC SOCIETY
OF
✓
BENGAL.

EDITED BY
THE SECRETARY AND SUB-SECRETARY.

VOL. XIII.

PART I.—JANUARY TO JUNE, 1844.

Nos. 145 to 150.

NEW SERIES.

"It will flourish, if naturalists, chemists antiquaries, philologers, and men of science, in different parts of *Asia* will commit their observations to writing, and send them to the Asiatic Society, in Calcutta; it will languish if such communications shall be long intermitted; and will die away if they shall entirely cease."—SIR WM. JONES.

CALCUTTA :
BISHOP'S COLLEGE PRESS.

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OFFICERS OF THE ASIATIC SOCIETY FOR 1844.

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PRESIDENT.

The Honorable W. W. Bird, Esq.

Vice Presidents,	{	The Right Revd. The Lord Bishop of Calcutta.
		The Honorable Sir J. P. Grant.
		The Honorable Sir H. Seton.
		H. W. Torrens, Esq.

Secretary, H. W. Torrens, Esq.,

Sub-Secretary, H. Piddington, Esq.

—

Committee of Papers.

Lieut. Col. W. N. Forbes, B. E.	|	Baboo Prosonno Comar Tagore.
Dr. J. Hæberlin,		S G. T. Heatly, Esq.
Lieutenant A. Broome, B. H. A.		N. B. E. Baillie, Esq.
C. Huffnagle, Esq.		W. Grant, Esq.

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Curator Zoological Department Museum, .. E. Blyth, Esq.

Curator Geological and Mineralogical De-	}	H. Piddington, Esq.
partments and Museum of Economic		
Geology,		

Librarian, Dr. E. Roer.

Accountant and Assistant to the Secretary, Mr. W. H. Bolst.

Assistant Librarian, Mr. W. Fenwick.

Taxidermist, J. Nicolas.

Treasurers, Bank of Bengal.

Agent in London, Professor H. H. Wilson, India House.

Agent in Paris, Major A. Troyer, 55, Rue de la Pepiniere.

Booksellers and Agents in London,.. Messrs. W. and J. Allen, Leadenhall street.

By an oversight, the list of Members of the Society intended for the present No. was published with No. CXLIV. Another is now given, and the former one may be cancelled.

LIST OF MEMBERS

Of the Asiatic Society of Bengal, on 1st January, 1844.

Anderson, Major W.
Avdall, J. Esq.

Bird, Hon'ble W. W.
Barlow, Esq. R.
Bayley, Esq. H. V.
Bogle, Capt. A.
Boys, Capt. W. E.
Birch, Capt. F. W.
Bigge, Lieut. H. L.
Brandreth, Esq. J. E. L.

Broome, Lieut. A.
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Baker, Capt. W. E.
Benson, Lieut. Col. R.
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Batten, Esq. J. H.
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Baillie, Esq. N. B. E.

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Cheap, Esq. G. C.
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Corbyn, Esq. F.

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Earle, Esq. W.
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Forbes, Lieut. Col. W. N.
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Houstoun, Esq. R.
Hæberlin, Dr. J.
Hickey, Lieut. C. E.
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Hutton, Capt. T.

Irvine, Lieut. Col. A. (c. B.)

Jackson, Esq. W. B.
Jenkins, Major F.
Jameson, Dr. W.

Karr, Esq. W. Seton
Kistnoth Roy, Bahadoor, Rajah

Lushington, Esq. G. F.
——— Esq. E. H.
Loch, Esq. G.
Long, Rev. J. Associate Member.

Maddock, Hon'ble T. H.
McQueen, Rev. J.
Mansel, Esq. C. G.
McKenzie, Esq. J.

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|---------------------------------------|---------------------------------------|
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| Muir, Esq. J. | Seton, Hon'ble Sir H. |
| Mill, Esq. J. B. | Strong, Esq. F. P. |
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| Middleton, Esq. J. | Stirling, Esq. E. H. |
| Macleod, Capt. W. | Spilsbury, Esq. G. G. |
| | Sutchurn Ghosal, Bahadoor, Rajah |
| Nicolls, Gen. Sir J. | St. Pourçain, Esq. J. |
| | Strachey, Lieut. H. |
| Ommanney, Esq. M. C. | Sprenger, Esq. A. |
| Ouseley, Licut. Col. J. R. | Stephenson, Esq. R. M. |
| O'Shaughnessy, Esq. W. B. | Shortrede, Capt. R. |
| | Stephen, Capt. J. G. |
| Peel, Hon'ble Sir L. | Syud Keramut Ullee, Associate Member. |
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| Prinsep, Esq. G. R. | Thomason, Hon'ble J. |
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| Phayre, Lieut. A. | Taylor, Lieut. Col. T. M. |
| Piddington, Esq. H. Associate Member. | Torrens, Esq. H. |
| | Trevor, Esq. C. B. |
| Robison, Esq. C. K. | Torrens, Esq. J. S. |
| Ryan, Esq. E. B. | |
| Rayenshaw, Esq. E. C. | Winchester, Rev. W. |
| Rawlinson, Major H. C. | Walker, Esq. H. |
| Rustomjee Cowasjee, Esq. | Wade, Lieut. Col. Sir C. M. |
| Ramanath Tagore, Baboo | Willis, Esq. J. |
| Ramcomul Sen, Baboo | Withers, Rev. Principal G. U. |
| Ramgopaul Ghose, Baboo | Wallis, Rev. A. |
| Radakanth Deb Bahadoor, Rajah | Wilcox, Major R. |
| | White, Major M. G. |
| Sleeman, Lieut. Col. W. H. | |
| Stacy, Lieut. Col. L. R. | Young, Lieut. C. B. |
| Sanders, Lieut. Col. E. | |
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Rules of the Asiatic Society.

The following is an abstract of the rules of this Institution which are now in force, including those printed in the Appendix to the sixth and subsequent volumes of the Society's Transactions.

Original Rules adopted from the Founder's Discourse, 15th February, 1784.

1.—The Institution shall be denominated the Asiatic Society, the bounds of its investigations will be the Geographical limits of Asia, and within these limits its enquiries will be extended to whatever is performed by man or produced by nature.

2.—Weekly Meetings shall be held for the purpose of hearing Original Papers read on such subjects as fall within the circle of the Society's enquiries.

3.—All curious and learned men shall be invited to send their Tracts to the Secretary, for which they shall immediately receive the thanks of the Society.

4.—The Society's Researches shall be published Annually, if a sufficiency of valuable materials be received.

5.—Mere Translations of considerable length shall not be admitted, except of such unpublished Essays or Treatises as may be transmitted to the Society, by Native Authors.

6.—All questions shall be decided on a Ballot, by a Majority of two-thirds, and nine Members shall be required to constitute a Board for such decisions.

7.—No new Member shall be admitted who has not expressed a voluntary desire to become so, and in that case, no other qualification shall be required, than a love of knowledge, and a zeal for the promotion of it.

Subsequent Resolutions of the Society which are in force.

8.—The future Meetings of the Society shall be held on the first Wednesday of each month; at half-past Eight o'clock in the Evening.

9.—If any business should occur to require intermediate Meetings, they may be convened by the President, who may also, when necessary, appoint any other day of the week, instead of Wednesday for the stated Meetings of the Society.

10.—As it may not always be convenient for the President to attend the Meetings of the Society a certain number of Vice Presidents shall be elected annually.

11.—In case the President, and the Vice Presidents are absent at any Meeting, a quarter of an hour after the fixed time, the senior Member present shall take the Chair for the Evening.

12.—Every Member of the Society shall have the privilege of introducing as a visitor, any gentleman who is not usually resident in Calcutta.

13.—With a view to provide funds for the necessary expenses of the Society, an Admission Fee shall be established to consist of two gold mohurs, payable by every Member on his election, and each Member of the Society, resident in India (Honorary Members excepted) shall also contribute a gold mohur, quarterly, in the first week of January, April, July and October. Any Member neglecting to pay his Subscription for half a year, after it becomes due, to be considered as no longer a Member of the Society.

14.—All Members returning to India shall be called upon to pay their Subscription as usual from the date of their return.

15.—A Treasurer shall be appointed.

16.—In addition to the Secretary, an Assistant Secretary and a Librarian shall also be appointed.

17.—A Committee of Papers shall be appointed, to consist of the President, Vice Presidents, Secretary, and nine other Members to be elected annually, and any number no less than five, shall be competent to form a Committee.

18.—This Committee will select from the papers communicated to the Society, such as may appear proper for publication, and superintend the printing of the Society's Transactions.

19.—The Committee of Papers shall be authorized to draw upon the Treasurer for any sums requisite to defray the expense of publishing the Translations, and an order signed by a Majority of the Committee, will be a sufficient warrant to the Treasurer for paying the same.

20.—The Committee of Papers is authorized to defray any small contingent expenses on account of the Society which they may deem indispensable.

21.—Every Subscribing Member of the Society, on application, shall be furnished with a copy of such volumes of the Researches as may be published whilst he continues a Member, in return for his contributions, without any further payment.

22.—With a view to the more general circulation of the Asiatic Researches in India, the price of the 12th and future volumes, to Non-subscribers, shall be fixed at a gold mohur, and if several volumes of different years be purchased together, they shall be sold at 10 rupees each.

23.—The Agents of the Society in England shall be desired to purchase, and forward for the Society's Library, Books of Science and Oriental Literature, published in Europe, taking care that those purchases at no time exceed the funds arising from the sale of the Society's publications.

24.—The Committee of Papers shall be requested to furnish the Agents in Europe with such further instructions as may appear requisite for their guidance in the selection of books proper to be placed in the Library of the Society.

Library.

25.—The Library is open from 10 to 4 o'clock, between which hours, the Assistant Librarian is to be in attendance every day, Sunday excepted.

26.—None but the Members of the Society are allowed to borrow Books from the Society's Library, and no book is to be lent out of Calcutta without especial permission from the Committee of Papers.

27.—Books are to be borrowed by written or personal application to the Secretary; in either case, the person applying is to furnish a written receipt specifying the name of the work, and the time for which it is borrowed, at the expiration of which he is to return the book borrowed, or renew his application for an extended loan of it.

28.—The receipts for the Books shall be filed, and a Record kept of the Books lent out, to whom, and when lent out, and when returned.

29.—A list of the Books in the Library, and a Register of those lent out, are to be kept ready for inspection.

30.—All persons borrowing Books are to be answerable for their safe return, or are expected to replace them if injured or lost.

31.—The Librarian should be authorized to call in any work which is detained beyond the time fixed by the preceding rule.

32.—All works borrowed from the Library, should be returned once a year, viz. the first of October, in order to enable the Librarian to have the most efficient control over them, and to report to the Secretary on the state of the Library.

33.—Valuable manuscripts should not be removed from the Library, and no work from the Oriental division of the Library can be borrowed by Native gentlemen, not Members of the Society without a special order of the Secretary.

34.—All books being books of general or special reference in the various branches of Natural History in the departments of the Zoological, Geological, and Mineralogical Curators, to be understood by the Librarian to be Books of reference for the use of those officers, and as such, not to be lent out of the Library.

35.—The Curators are farther to be allowed to take over for daily use, such Books as they may select for that purpose, giving the usual receipt to the Librarian,

Museum.

34.—On the 2nd February 1814, the Society determined upon forming a Museum for the reception of all articles that may tend to illustrate Oriental Manners and History, or to elucidate the particulars of Nature or Art in the East. The following Resolutions were at the same time passed upon the subject.

35.—That this intention be made known to the public, and that contributions be solicited of the undermentioned nature :—

1. Inscriptions on stone and brass.
2. Ancient Monuments, Mahomedan or Hindoo.
3. Figures of the Hindoo Deities.
4. Ancient Coins.
5. Ancient Manuscripts.
6. Instruments of War peculiar to the East.
7. Instruments of Music.
8. The vessels employed in Religious Ceremonies.
9. Implements of Native Art and Manufacture, &c. &c.
10. Animals peculiar to India, dried or preserved.
11. Skeletons, or particular bones of animals peculiar to India.
12. Birds peculiar to India, stuffed or preserved.
13. Dried Plants, Fruits, &c.
14. Mineral or Vegetable preparations in Eastern Pharmacy.
15. Ores of Metals.
16. Native alloys of Metals.
17. Minerals of every description, &c. &c. &c.

36.—That the hall on the ground floor of the Society's house be fitted up for the reception of the articles that may be procured. The plan and expenses of so doing to be regulated by the Committee of Papers and Secretary, and the person under whose superintendence the Museum may be placed.

37.—That the expense which may be incurred in preparing materials furnished in a state unfit for preservation be defrayed by the Society within a certain and fixed extent.

38.—All articles presented to the Museum shall be delivered in the first instance, to the Superintendent of the Museum, to enable him to make the acknowledgment, directed in the standing rules of the Society.

39.—A Register of Donations to the Museum, shall be exhibited each Meeting of the Society.

40.—The Committee of Papers shall adopt such means as may appear proper for making the intentions of the Society, in this respect, generally known.

41.—That the names of persons contributing to the Museum or Library of the Society, be hereafter published at the end of each volume of the Asiatic Researches.

Bibliotheca Asiatica.

The following Resolutions were passed on the recommendation of the Committee of Papers, under date the 2nd July 1806, but materials have not yet been received for publishing a volume of the work therein proposed.

42.—That the Society publish from time to time as their funds will admit of it volumes distinct from the Asiatic Researches, translations of short works in the Sanscrit and other Asiatic Languages, or extracts and descriptive accounts of books of greater length in those languages, which may be offered to the Society, and appear deserving of publication.

43.—That as this publication may be expected gradually to extend to all Asiatic books of which copies may be deposited in the Library of the Society, and even to all works extant in the learned languages of Asia, the series of the volumes, be entitled *Bibliotheca Asiatica*, or a Descriptive Catalogue of Asiatic Books with extracts and translations.

Physical Class.

The following Resolutions were passed on the 2nd January 1828 :—

1.—That the Physical Committee of the Asiatic Society be considered as in existence and for the same purposes as formerly, exclusively of Medicine.

2.—That all Members of the Society, be Members of the Committee.

3.—That persons not belonging to the Society, may be elected as corresponding Members of the Committee, upon the recommendation of any three Members without being liable to any charge.

4.—That the Committee elect its own Officers.

5.—That the Committee frame its own rules, subject whenever likely to interfere with the Rules of the Society, to confirmation at a General Meeting.

6.—That the proceedings of the Society, and short notices of any interest, be published from time to time, as they accumulate, in such form as may be hereafter found convenient.

7.—That Papers of any extent or permanent interest, be published in the same type and form as the Researches, so as to admit of their being bound up with them.

8.—That the expense of these publications be borne by the Society.

9.—That the Physical department of the Museum be considered under the especial charge of the Committee, Mr. Tytler undertaking the care of the Osteological Specimens and Mr. Ross of the Minerals.

Translation Committee, 3rd September, 1828.

That a Committee of the Society be formed to communicate with the Committee of Translation of the Royal Asiatic Society, and carry their views into effect by procuring and transmitting such Manuscripts, Originals and Translations, as they may be able to obtain for the purpose.

That a Book be opened for Subscriptions of Ten Guineas per annum, each Subscriber; entitling him to a Copy of all the Works printed by the Translation Committee.

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JOURNAL

OF THE

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On the Migratory Tribes of Natives in Central India. By EDWARD BALFOUR, ESQ., Assistant Surgeon. Communicated by the Author to JAMESON'S EDINBURGH JOURNAL.

We have copied the following interesting article from JAMESON'S EDINBURGH JOURNAL, No. LXIX, for 1843, and we add to it from Dr. Voysey's Journals, his brief Vocabulary of the Goand and Cole words. We cannot on this occasion refrain from again urging upon gentlemen who may be so situated as to be able to obtain these notices and vocabularies, the extreme importance and great utility of doing so. It is impossible, we think, for the oldest resident in India to read this curious article without being struck with the reflection of how much there is in India, of which we as yet know little or nothing, and yet the knowledge of which is so important to us in every capacity. We trust that Dr. Balfour's praiseworthy labours will not stop here, and that he will go on in the useful and honorable field in which he has chosen to labour.—EDS.

The hills and forests in the centre of India, are inhabited by people differing widely from the inhabitants of the plains. Their great abode, says Mr. Elphinstone, is the Vindya mountains, which run east and west from the Ganges to Guzerat, and the broad tract of forest which extends north and south from the neighbourhood of Allahabad to the latitude of Masulipatam, and with interruptions almost to Cape Comorin. These people have separate names—Paharias, Kols, Gonds, Bheels, Colis, and Colaris; but in many points they differ from each other, and little has been done to shew that they are the same people. In addition to these races, there are many smaller communities spread throughout India, each with a distinct name, and speaking a distinct tongue; leading a migratory life, and resorting only to towns to purchase a few necessaries; they seem the remains of some aboriginal peo-

ple who had occupied the soil perhaps before any of the nations now possessing it; and it may not be uninteresting to mention some of the habits of these nomade races.

THE GOHUR, CALLED BY EUROPEANS AND NATIVES BENJARI, OR
LUMBARI.

The Binjarries are separated among themselves into three tribes—Chouhone, Rhatore, and Powar. Their original country, they say, was Rajputana,* but they now are spread over Hindostan, all adhering to the same customs, and speaking the same language. This bears a strong resemblance to the language of Guzerat, though there are many words in it without affinity with any of the dialects we are acquainted with. At the head of the Binjarries in the Dekhan are two individuals who receive the title of Naeks. They reside in Hyderabad, and the encampments located near that city refer any disputes that arise to them for their decision; but the chief occupation of these Naeks is to keep up a correspondence with the different parts of the country, to gain early information from localities where war or famine has raised the price of grain.

The Binjarries are grain merchants; indeed the name is given them from their occupation; and their traffic being carried on by bullocks, they traverse the most impracticable countries to collect supplies, which they pour into the districts where scarcity prevails, or they move in the track of large armies, to furnish them with grain during the campaign. In carrying on war in India, where armies carry their magazines along with them, the services of the Binjarries are almost indispensable, and their occupation renders them sacred. For this reason, though moving among hostile bodies in time of war, they consider themselves secure from being molested by any party, and there have been instances of large bodies passing near camps, and though refusing to dispose of the grain they carried, being allowed to move on to the enemy, the dread of alarming them, and thus banishing them for ever, being sufficient to protect them from interruption. The time of hostilities or of dearth was a period of activity among them; but

* On the summits of the hills (formerly islets) which, united, form the island of Bombay, reside about 75 families of cultivators, who say they emigrated from Rajputanah. Many of the words in the language of this people, and the dress of their women, are similiar to the Gohurs. They call themselves Purmans.

our successes have restored order to India, and have sent our troops to cantonments, and with the return of peace, nothing occurs to interrupt the labours of the husbandman, and scarcity seldom prevails. These changes have done much to make the Binjarries poor, and where disease has swept away their bullocks, the community, unable to purchase others, has broken up and dispersed. When thus reduced, the women bring firewood to the towns to sell, which their husbands cut in the jungles. They were at all times considered a bold and formidable race, and when traversing the country with herds of bullocks transporting grain and salt, they frequently perpetrated robberies in gangs, and they are not over-scrupulous in committing murder on these occasions, if they meet with opposition, or deem it necessary for their security. With the approaches of poverty, too, vice has grown apace ; many are convicted of stealing cattle and children, and Thugs have also been detected among them.

A community of Binjarries is termed a Tanda. In each Tanda an individual is selected to whom the title of Naek is given, but his rank would seem to clothe him with but little authority. No rules exist among them to regulate their conduct or guide their society, and though they keep together in large bodies, it would seem more from their intermarriages and the security numbers give, than from any laws binding them to the tribe. The Tandas in their movements encamp on wastes and uncultivated spots, sometimes near, but more frequently remote, from towns.

The Binjarries pull down the wild boar with dogs of a powerful and peculiar breed, which they keep in all their Tandas ; but with the exception of the wild hog, they live, as regards food, like other Hindus. A few are met with who can read and write. Their wandering life precludes them from residing in towns ; they live under tents while the hot weather continues, and on the approach of the monsoon, construct grass huts to shelter them from the piercing rains that fall.

Their features are dark and bronzed. The men have tall and muscular frames. Their dress differing much from the nations and communities around them, attracts attention to the females of the tribe, on whom nature has bestowed the most faultless forms ; tall and exquisitely moulded, these dark children of the desert move with a grace unwitnessed among a civilized people, their loose and peculiarly form-

ed garments assisting to set off their shape. A boddice (called Kan-terie) fitting neatly to the form in front, reaches from the neck to the hip, conceals the bosom, but is left open behind; this with a gown (petia) fastened by a noose beneath the waist, and falling in loose folds to the feet, and scarf (cadhi) thrown carelessly over the shoulder, completes their dress, which is made of cloth dyed with bright and varied colours. From their hair, and the tapes that bind their dress, are suspended long strings of courie shells, massive rings of silver clasp the ankles, and the arms, from the wrist to the shoulder, are loaded with broad rings of ivory, cut from the elephants' tusks, and dyed with varied dyes. The ceremonies attending the marriage of a widow are, as is usual among the natives of the east, few; the gift of a new cloth, and the selection of a fortunate hour on which to conduct the bride home, comprise the whole. With the young bride, a more lengthened rejoicing is made. On the marriage being assented to, the bridegroom pays one or two hundred rupees to the parents of the bride, and at the early part of the day, which the brahman who has been consulted has pronounced auspicious, two pyramids are constructed, by placing earthen pots one above another, ten or twelve feet apart, a bundle of firewood is laid behind each pyramid, and two wooden pestles, used by the women of every house in India to clean the grain, are planted perpendicularly between. The ceremonies last five days, during which the friends are feasted, the bride and bridegroom sitting on the ground between the pyramids, and on the fifth day, after being bathed by their respective male and female relations, the bridegroom leads to his tent his bride. The next morning the young wife rises early, and carrying the hand-mill near the feet of her husband's parents, there grinds the corn* necessary for the meals of the

* Shortly after midnight, the women in the east rise and begin to grind corn for the family, cheering themselves in their lonely task by singing their labour songs. In several parts of Scripture this custom of grinding the corn for the day's consumption is noticed. "In the day when the grinders cease because they are few, and the doors be shut in the streets because the sound of the grinding is low."—Ecc. xii. 3, 4. See also Ex. xi. 5. and Is. xlvii. 1, where it says, "Come down and sit in the dust, O virgin daughter of Babylon; sit on the ground; there is no throne, O daughter of the Chaldeans, take the millstones and grind meal;" and in Matt. xxiv. 41, it is said, "two women shall be grinding at the mill, the one shall be taken and the other left." One person can generally grind sufficient for the use of a small family, but where much is required, two women, as noticed in the Scripture, sit on the ground with the millstones between them.

coming day, and is thus initiated into the practice of her domestic duties. The Binjarries are not restricted to one wife. It is rare, however, to have more than three or four in a house.

In the roving life they lead, exposed to the vicissitudes of a tropical climate, and liable to accidents and disease, we would fancy that necessity would have taught them some acquaintance with simples and the arts of life; but that custom, fatal to improvement, which obtains throughout India, binding each community to follow only those pursuits which their predecessors have been engaged in, prevails with equal effect among this migratory tribe, to whom every art is equally unknown. When sickness occurs, they lead the sick man to the feet of the bullock called "Hatadia," for, though they say they pay reverence to images, and that their religion is that of the Sikhs, followers of Nana Govind, the object of their worship is this "Hatadia," a bullock devoted to the god Balajee. On this animal no burden is ever laid; but decorated with streamers of red dyed silk and tinkling bells, with many brass chains and rings on neck and feet, and strings of cowrie-shells and silken tassels, hanging in all directions, he moves steadily on at the head of the convoy, and the place he lies down on when tired, that they make their halting ground for the day; at his feet they make their vows when difficulties overtake them, and in illness, whether of themselves or cattle, they trust to his worship for a cure. This bullock is their god, their guide, and their physician.

From their migratory life, we are deprived of all means of calculating their numbers; but spread throughout the whole of India, in large bodies, they no doubt far exceed any amount of people which are brought to one individual's notice.

They bury the people who die unmarried, but the bodies of the married are burned. Food is placed at the head and foot of the grave, but no omen of the state of the deceased is drawn from the creature that eats it.

HIRN-SHIKARRY OR HIRN-PARDY,—THE HUNTERS.

The Hirn-shikarry or Hirn-pardy, the Indian hunters, term themselves Bhourie. They are of short stature, greatly wanting in intelligence, and timid in their intercourse with their fellow-men; while constant exposure to the vicissitudes of the seasons and their familiarity

with toil and want, has stunted their growth and made them black and shrivelled in their form. Their numbers are great. They range from the snowy Himalayahs in the north through the vast plains of Hindustan, till at Cape Comorin, beneath the equator, the Indian ocean checks their further progress.* From each valley and each forest that civilized man has as yet left unoccupied, or has once again abandoned to the wild creatures of nature, the hunter obtains his means of subsistence. The creatures that they kill they eat, for, with the exception of the cow and bullock, all animals, the elephant, the tiger, and the leopard, the jungle dog and jungle cat, the wild-boar, the wolf, the iguana, and the rat and mouse, are used as food by the Bhourie. They obtain a little money by disposing of the skins of the animals they destroy, and often earn large rewards for destroying the leopards and wolves that at all times prowl about the outskirts of villages. The women, on visiting a town, gain a little money by disposing of charms and antidotes to the bite of a snake or scorpion's sting.

The language of the Bhourie seems to have little relation to that of any of the other migratory nations. It has many words like the Guzerattee and Mahrattee, and several of pure Sanscrit. The Bhourie are divided into five tribes, receiving among themselves the names, 1. Rhatore or Mewara ; 2. Chowhone ; 3. Sawundia ; 4. Korbiar ; and 5. Kodiara. It would appear that the hunters dwell in distinct localities, restrained from migrating to the hunting-grounds of other branches by custom and the fear of punishment, instances having lately occurred where the magistrate's authority has been called in to drive back tribes, who, urged by want, or enticed by more promising wilds, had quitted their own, and located themselves on the hunting grounds of a neighbouring community.

These communities are governed by chiefs, termed "Howlia," who attain to their office by descent. It was difficult to obtain exact information regarding these head men ; they would seem to be considered spiritual as well as civil guides, and among the wild untutored minds of these rude creatures, there seemed to be some vague idea that

* Lieut De Butts, in his *Rambles in Ceylon*, describes a race termed "Veddahs" who, from his description, seem to be the same as the Bhouries of India.

their Howlia is an incarnation of the deity. The occurrence of murder or other grave crime my informant had never heard of ; but all minor matters are decided by these chiefs. On them likewise devolves the duty of summoning the different members of the tribe to aid in snaring the tiger, for which villagers and proprietors occasionally offer high rewards. This, when earned, they divide into three shares, one for the god of the river, one for the god of the wilds, the remaining third being apportioned equally among those who were present at the capture, the Howlia or chief obtaining no greater sum than another of the community. They all assemble at the Holi festival, at the place of the Houlia's residence, when he collects his income, the community subscribing one rupee a head.

Among other modes of obtaining subsistence, thieving is one which they look to as no small means of support. Gang robbery, or any system attended with violence, they are not addicted to ; but no field or stack of grain is safe from their depredations when they are in the neighbourhood. For this, severe fines, and death itself, were often inflicted on them, while the country was ruled by the native princes ; for though the hunters have only a narrow loin-cloth as clothing, and the persons of the women are scarcely hidden by the few rags they pick up in the fields and sew together, yet, when in the grasp of native chiefs, the fear of death has made them produce two to five thousand rupees to purchase forgiveness and regain their freedom. It may be from the recollection of such scenes, that, notwithstanding their seeming poverty, all classes assert these wretched-looking beings to be the possessors of vast wealth, and when in the fields in their lonely camps, sheltered by a few tattered rags stretched overhead, they are at intervals plundered by the ruthless robbers we term decoits.

For the first five years after the beard first appears, it and the hair is cut once a year, but ever after they wear both unshorn, and their long shaggy locks add to their uncouth appearance. The bodies of the dead are buried. Few attain sixty years of age, and ten is the greatest number of children they have known one woman to bear ; nor have they ever heard of any one being killed by a tiger, though one of them has assisted at the capture of eight of these creatures. They call themselves a branch of the Dhoongur, the Shepherd or Vesya race.

THE TAREMOOK, OR WANDERING BLACKSMITH.

The Wandering Blacksmith is known in the Dekhani language, as Ghissaris; as Lohars by the Mahrattas; and from the Canarese they receive the name of Bail-Kumbar, but they term themselves Taremook.

Their traditions affirm the northern provinces of Hindustan to have been their original country; but the cause or the period of their emigrating thence has not been preserved. As a race, they are dark, though not black, and somewhat taller than Hindoos in general. They are to be seen dwelling on the outskirts of almost every village throughout India, though their numbers are not great; the largest number of families the old Taremook who gives me this information has ever seen in one place, amounting to ten, a community of perhaps sixty people. It is rare to find them occupying houses in towns; but, for the greater facility of migrating, they encamp outside the walls, where they reside, exposed to the changes of the weather, from which they are barely sheltered; a ragged and patched cloth, two or three yards long, being all a family have for their protection. They are blacksmiths by trade, and are very poor, living from hand to mouth. The women collect wood in the jungles, to make the charcoal necessary in their husbands' trade: the movement of the forge-bellows is likewise the duty of the women, many of whom assist their husbands by working the sledge-hammer. Their language they term Taremooki: that spoken by the communities in the Dekhan contains several Mahrattee and Canaree words, a mixture probably resulting from their lengthened sojourn on the border countries of these two nations.

The richest Taremook my informant has ever seen, was said to be worth ten thousand rupees; but though some individuals collect a little money, he has never known any one learn to read or write. The dress of this migratory race is like that of other Hindus. Their religion is the Brahminical, Kandoba being the deity to which their worship is chiefly directed. Their marriages are conducted similarly to the customs of the Hindoos, but intoxicating drinks are largely used. They have earned a great name for gallantry, and it is a very usual thing to hear of the rough Taremook levanting with another man's wife. On the occasion of a birth, they sacrifice in the name of Satwai. They burn the bodies of married people, and lay the ashes by a river's

side ; but the unmarried dead are buried, and for three days after the funeral food is carried to the grave, though they draw no augury of the state of the soul of the deceased from any creature eating the food.

THE KÖRAWA.

This migratory people arrange themselves into four divisions, the Bajantri, Teling, Kolla, and Soli Korawas, speaking the same language, but none of them intermarrying or eating with each other. Whence they originally migrated it would be difficult perhaps now to come to a conclusion, nor could it be correctly ascertained how far they extend. The Bajantri or Gaon ka Korawa, the musical or village Korawa, are met with in Bejapore, Bellary, Hyderabad, and throughout Canara. The men of this people are somewhat more robustly formed than the settled population ; but the females are less tall, and more dark than the Canarese women among whom they are located. Their food differs from that of the Hindoo as well as the Mahomedan ; they never eat the cow or bullock, but the jackal, porcupine, hog and wild boar, deer and tigers, are sought after and used by them. They deny that robbery is ever made a regular mode of earning a subsistence ; an honesty, however, that the people among whom they dwell give them but little credit for. Indeed, from my own observation, on an occasion that brought the circumstances of a community to the light, it is difficult to believe that the great sums found in their possession could have been honestly earned. They live by thieving, making grass screens and baskets. The men likewise attend at festivals, marriages, and births, as musicians, which has obtained for them the name of Bajantri ; and at the reaping season all resort to the fields to beg and pilfer from the farmers, for they will not be induced to put their hands to labour. The women, too, earn a little money by tattooing on the skin the marks and figures of the gods, which the females of all castes of Hindus ornament their arms and foreheads with. The Bajantri Korawa reside in mud huts, in small societies outside the walls of the village to which they have temporarily attached themselves. The age for marrying is not a fixed time ; and, different from every other people in India, the youth of the female is not thought of consequence, the old man telling this

when a lad with mustaches just appearing, having been married to a woman who, five years previously, had attained maturity ; a marriage that would have been opposed to the customs, and repugnant to the feelings alike of Hindoo and Mahomedan. To this wife he yet remains attached, though it is not unusual to have two, three, or four wives in one household, among this people. In marrying, at the hour pronounced to be fortunate by a Brahmin, the bride and bridegroom, smeared with turmeric, are seated on the ground, and a circle drawn with rice around them. For five days the musicians attend before their door, and the whole concludes by the neighbours gathering round and sprinkling a few grains from the rice circle over the couple. The married women wear the tali round their necks, which is broken on the husband's death by the relatives of the deceased. This people live virtuously ; the abandonment of their daughters is never made a trade of, and other classes speak favourably of their chastity.

They respect Brahmins ; and though they never, or at least very rarely, attend places of worship, they seem to respect the gods of the Hindoo mythology, and keep in their houses small silver images of Hanuman, which they once every two or three months worship with songs, and sacrifice and music. Their foreheads, too, are tattooed with the mark of Vishnu ; but they offer up no daily prayers.

THE TELING KORAWA, OR KORAWA OF TELINGANA.

This branch of the Korawa people are generally known as Kusbi, Korawa, Aghare Pal Walé, prostitute Korawas, the sitters at the doors of their tent ; but these names the people themselves consider opprobrious. The form of their features is altogether different from that of the Bajantri Korawa, the shape and expression of the countenance being similar to the inhabitants of the Coromandel coast—the country, if we judge by their name, Teling, whence they originally migrated : but wandering from place to place for a livelihood, wherever the Madras troops marched under Sir Arthur Wellesley, they followed, and are now found located in most British cantonments. The Teling Korawa gain a livelihood by basket-making and selling brooms, in making which their wives assist ; but their chief means of subsistence is in the prostitution of their female relatives, whom, for that purpose, they devote to the gods from their birth.

When the lives of children in India are despaired of, the fond mother, whether Mahomedan or Hindu, wills that it should live, though sickness and destitution be its lot through life; and when agonized by the prospect of its death, she vows to devote her offspring to the service of the deity, should its life be spared. With the Mahomedans, the male children thus devoted become durvishes, and their females termed 'Mustanis,' attach themselves to one or other of the four large communities of Fakirs, who beg in India, the Mustanis being supposed to live a life of virtue. Among the Hindus, again, there are two classes of devoted women, the one attending the temples and living a life of chastity, the other class fulfilling the vows of their relatives, by promiscuously sacrificing to sensual love. The Brahmins, who, worshipping a deity generally as pure theists, whether followers of Brahmna, Vishnu, or Siva, are seldom guilty of thus throwing their females on society; and this practice seldom obtains among the better classes of Hindus even. But as this pursuit of the women thus devoted, however public it may be, entails no disgrace upon the women themselves, or their families, many of the low castes and migratory tribes of the Hindus have readily taken to a practice which allows them to follow a profitable calling, without suffering in the opinion of their neighbours; and as the poorest and most wretched community in India attach the utmost importance to the purity and conjugal fidelity of their unmarried and married females, the low castes and outcasts to whom money offers a great temptation, devote their female children in their earliest infancy, and thus are able to practise their profession without restraint.

The goddess, in whose service the lives of the 'Teling Korawas' devoted women are thus to be spent, has her chief shrine near Bellary. They never devote more than one of their daughters; the rest are married and made honest women of. The devoted women, notwithstanding their loose lives, occasionally bear children, so many as four having been the children of one mother. These children are treated as if legitimate, being admitted without purchase to all the rights and privileges of the caste. It is probably owing to this intermixture that the varied colours we find among them arise, changing in individuals from the fairness of the Brahmin to that of the darkest coloured Sudra.

They have no rules or laws among their community for self-government. They eat the deer, the hare, and the goat; but the cow is con-

sidered a sacred, and the hog an accursed, animal, and never used as food. No one can read or write.

They are very rarely allowed to reside inside towns; but when this liberty is granted them, they pitch their tents or erect grass huts at a distance from the dwellings of respectable people. The women wear a boddice (choli) open in front, and a sarhi; the men dress as Hindus usually do.

This branch bury their dead, and the food that was most liked by the deceased is placed at the head of the grave. The most favourable omen of the state of the departed soul is drawn from its being eaten by a crow; less auspicious if by a cow; but if both the crow and cow decline to eat it, they deem the dead to have lived a very depraved life, and impose a heavy fine on his relatives for having permitted such evil ways.

Their religion is the brahminical, and Brahmins assist at all their ceremonies. Their language is nearly similar to that spoken by the Bajantri Korawa, with whom they agree in the arrangement of the Korawas into four branches. The other two, in addition to the Bajantri and Teling Korawa, I never met with. They are called Koonsi Korawa, and the Patra Korawa, or Patra Pulloo. Their manners and habits and mode of life are scarcely dissimilar from one another; all of them can converse in their own language, but they do not eat or marry with an individual of a different branch.

THE BHATOO.

This migratory people are known in India by the name of Doomur or Kollati. They are spread over the whole of the great continent; but though retaining among themselves the name of Bhatoo, they are arranged into several distinct tribes, speaking different tongues, and holding no intercourse with each other. One of these tribes occupies the country from Ahmednuggur in the north, to Hurryhur in the south, and lie between Bellary and the western shores of India.

The Bhatoo are seldom tall, rarely exceeding five feet two inches in height, and the women attaining a proportionate size. At the period of adolescence, however, the young men and women are perfect models for the sculptor, the plumpness of that age rounding off the form, and hiding the projecting bones and the hollows between the muscles,

which, in after life, the profession that both sexes follow too prominently develop. They are "Athletæ;" and the boys and girls are trained to the most surprizing feats of agility from their earliest infancy. Besides this, which is their ostensible mode of gaining a livelihood, the men of this wandering people earn sums of money by exorcising demons from the persons of those they possess;* but what they most trust to for support is devoting their female relatives to the gods.

The various castes of Hindus have their various gods, at whose shrines the children are devoted; but the god of this Bhatoo is Kandoba,† in the village of Jeejoorie, near Poona. About the age of five they carry their female relations there, and after performing sacrifice, and burning frankincense, they lay the girl at the feet of the deity, to which she is now considered married. These devoted women, and all the male children, are regularly trained to athletic exercises, and the community wanders from village to village to exhibit. Most of their feats are performed by means of a bamboo. On the morning of the day they intend exhibiting, they abstain from all food, and to this rule they attribute much of their freedom from disease; and my informant, an old man sixty years of age, can recollect no instance of rupture among them. Before his own eyes, however, he has seen four people killed by falls from the bamboo, innumerable injuries sustained by others, and he himself has his right elbow joint fearfully crushed.

They settle unimportant points among themselves by arbitration, but all serious matters are brought for the decision of their British rulers. They are totally uneducated; the old man giving me this information has never seen or heard of any one who could read or write. Impressed with the belief, prevalent throughout India, that the muscular system does not retain its vigour after marriage, the Doomur or Bhatoo delays marrying till middle-aged; and then, owing to the great expense the ceremonies when taking a young wife occasion, the Bhatoo usually allies himself with a woman who, having been devoted to the gods in her infancy, has now become too old to make

* Insane people are frequently taken to have the demon cast forth to these people, and are occasionally placed in a cleft of a tree,—these, of course, are not benefited by the processes, but demons are frequently cast out of people who had no demons in them.

† An incarnation of Mahadeva.

a trade of her charms, and too stiff to take a part in the athletic exhibitions. Two or three hundred rupees are expended in marrying a young wife ; but the ceremonies for the older women are completed in a day, and cost only ten or twelve rupees. Yet, notwithstanding this mode of life, they are not unprolific, my informant having seen five, six, seven, and even eight children born of one woman who had been devoted in her infancy to the gods.

They never eat the hog, the cow, the bullock, or the horse. They call themselves Mahrattas, but their religion seems essentially different from the Hindus around them. They own attachment to none of the three great divisions of the brahminical faith, and when asked whom they worship, they reply, "Narayan," the Spirit of God ; but the particular object the Bhatoos pays his devotions to is the bamboo, with which all their feats are performed. At the village of Thekoor, near Kittoor, the shrine of the goddess Karewa has been erected on the summit of a hill, around the base of which dense forests of bamboo grow. One they select, and the attendants of the temple consecrate it. It is now called "Gunnichari" (Chief,) and receives their worship annually. To it, as to a human chief, all respect is shewn ; and in cases of marriage, of disputes requiring arbitration, or the occurrence of knotty points demanding consultation, the gunnichari is erected in the midst of the counsellors or arbiters, and all prostrate themselves to it before commencing the discussion of the subject before them. The Bhatoos do not keep idols.

All the dead are buried ; when they consign one of their people to the earth, they place rice and oil at the head of the grave, and stand near to watch what creature comes to eat it, drawing the happiest omen of the state of the departed from the crow visiting the spot.

THE MUDDIKPOR.

Many names have been given to the migratory people we are now noticing ; Keeli Katr, or Kootaboo, Kublgira or ferryman, Koli, and Barkur, are those most usually employed ; but Muddikpor is the designation they apply to themselves. They are generally tall and powerful men, with an olive-yellow complexion, and are now very numerous throughout India. They say their original locality was the village of Talicot, near Sorapore, and that however far they be

now dispersed, all classes continue to speak the Mahratta tongue, though they must likewise acquire a knowledge of the language of the country they wander about in, to enable them to earn a livelihood. Their traditions carry back their origin to the obscure periods of Hindu history; and they say they have sprung from ten individuals, and thus account for the ten tribes into which we now find them divided; and this traditionary account of a common origin receives corroboration from the circumstance that all the tribes marry and eat together.

In each tribe an individual is superior to the others, to whom the rank descends by birth, though no title is attached to the office. All disputes that arise are arranged by a jury, whose decisions are made in accordance with the customs of their forefathers received by tradition.

These wanderers earn a living by catching fish with nets, and their women earn a little by knitting, and by tattooing the dark blue marks on the foreheads of the brahmins and lingaets; but their chief occupation is the exhibition of the transparencies used in representing the battles of the Panch Pandya, five brothers, whose exploits are we believe, detailed in the Ramayuna. The figures are painted on deer-skin with very brilliant colours, and the story being one the Hindu never tires in listening to, in every village after night-fall you may see the representation of the battles, and hear the Keeli Katr describing the heroes' deeds.

Their females are very virtuous, and one woman has been known to give birth to twelve children. Reading and writing is unknown among them. Their dress and food are the same as the Hindus among whom they dwell.

They live in square huts formed of grass sewed together, the whole being perhaps a rupee in value. These they themselves make and carry with them at their periodical migrations, which custom renders obligatory every three months,—a longer stay would, they say, subject them to some dire calamity; and as the third moon passes by, the spot that yesterday was a merry encamping ground, is to-day a desolate and unoccupied waste.

The Muddikpor seemed to me to have no idea of a Supreme Being. They pay their devotions to the transparent figures with which the

battles of the Panch Pandya are represented : the box of bamboo containing them is each morning placed on a part of the floor fresh covered with cow dung ; and on the lid being opened to expose the drawings, they burn frankincense, and bow down to the ground in worship, —“ Oh Panch Pandya, by you we live, continue to give us our daily bread !”

They are not restricted to one wife, and they bury all their dead, except lepers, whom they burn.

The languages spoken by these tribes are not understood by any one of a tribe different from their own, though there seems a general similarity among them, as will be seen from the few words I obtained. The Sanscrit, Tamil, Telogoo, Guzerattee, and Maharattee, have been placed to enable a comparison to be made.

ENGLISH.	SANSKRIT.	TAMIL.	TELUGOO.	GUZERATTEE.	MHARATTEE.	GOHURIE.	BOWRIE.	TARLEMOOKEE.	KORAWAEE.	BHATOOREE.
Earth	Bhoomé	Bhoomi	Bhooané	Zameen	Poottool	Jamee	Bhoé	Mattri	Tirri	Bhoé
Stone	Pashan	Kulloo	Rai	Pathar	Duggr	Bhatta	Bhattoo	Dugroo	Kellay	Pathar
Water	Ap Oock.	Tanni	Neel	Pani	Pani	Pani	Pani	Pani	Ar	Pani
River	Naddi	Ar	Eeroo	Nuddi	Nuddi	Nandie	Nandie	Nudd	Mooroo	Jar
Tree	Vrikoh	Marm	Chet	Jhar	Dzar	Jhar	Jhar	Jhar	Rutti	Rutti
Bread	Bhoojn	Roti	Ruttie	Roti	Bhakrie	Bhatta	Bhatta	Bhatu	Wuggul	Ghum
Sunshine.	Ooshun	Vayil	Eenda	Tirkhoom	Nimber	Turko	Taoro	Turko	Nerpu	Ugg
Fire	Agni	Nerpu	Nepu	Atlas	Vestoo	...	...	...	Kas	Bara
Wind	Waioo	Kath	Gali	Paon	Hirn	Warr	Wacro	Wacro	Chigree	Hirn
Deer	Mirg	Maun	...	Hirn	Hirn	Kuryar	Hirn	Hirn	Amloo	Moons
Man	Manish	Manum	Mansi	Manus	Manus	Gohurn	Mankhoe	Lokro	Punjri	Jo
Woman	Streea	Pomli	Arnansi	Baidi	Baikoe	Gohurni	Manuss	Chali	Managa	Matoe
Husband	Ruti	Aml	Pemli	Mati	Navra	ohur	Bhowrie	Bhoyé	Kools	Bako
Wife	Stree	Pundati	Pemboom	Bairri	Baiko	Gohurni	Bawun	Baiko	Amloo	Kudjia
Boy	Balig	Payun	Kurrur	Chokro	Chakra	Chora	Chora	Porwo	Nai	Chora
Girl	Cunya	Sirki	Ar Pella	Chokrie	Chokrie	Chorie	Chorie	Lokri	Hena Maga	Chorie
Son	Shupho	Magn	Kurpoe	Dekro	Chakra	Chora	Chega	Beto	Amloo	Chora
Daughter	Kunna	Maga	Kootroo	Dekrie	Chokrie	Chorie	Cheei	Porni	Magga	Bitie
Father	Peeta	Appin	Tinree	Bawa	Bapp	Bap	Bao	Aoo	Aoo	Bappo
Mother	Mata	Amma	Amma	Malree	Al	Yaree	Aya	Amna	Amna	Yajee Amma
Bull	Virishab	Maroo	Eedoo	Dor, Burrod	Bail	Bullog	Dhando	Bail	Marr	Bail
Cow	Gao	Pussoo	Go	Gae	Gae	Gowrie	Gai	Gai	Akl	Gai
Horse	Aslip	Coodrie	Gurum	Ghoro	Ghoro	Ghoro	Ghoro	Ghoro	Coodrie	Ghoro
Mare	...	Putta Coodrie	Ar Gurum	Ghorie	Ghore	Ghorie	Ghorie	Ghorie	...	Ghorie
Dog	Shwan	Nai	Kookka	Kutro	Kuttra	Kuttra	Kutro	Ghorie	Nai	Kutta
Bitch	...	Putta Nai	Ar kookka	Kuttie	Kuttrie	Kutrie	Kutrie	Kutrie	Putta Nai	Kuttie
Bear	Sookri	Punni	Moga Pendi	Dookr	Dookr	Soor	Koor	Dookr	Pandee	Tunda
Cat	Sookri	Poni	Pelice	Billari	Manjan	Balai	Billé	Mandur	...	...
Cock	Koorkoot	Chawul	Poonzoo	Murgh.	Koomra	Kukro	Kokro	Kokro	Korla	Kukur
Hen	Koorkooti	Kolie	Korie	Komri	Komri	Kukrie	Kokrie	Kokrie	Korlie	Kukun
Duck	Budhag	Bat'h	Bat'h	Butah	Batto	Budhug	Budhug	Budhug	...	Budah
Tiger	Wajgr	Peeli	Peeda Pooli	Bat'h Gaj	Wag	Bag	Wag	Wag	...	Bag
Goat	Aija	Arroo	Meka	Buckra	Bokr	Cheela	Bokro	Bokro	Mekur	Buekra
Sheep	Alja	Koorin Arroo	Goorie	Munda	Meenda	Meenda	Gadri	Mhendal	Goorell	Mhende
Jackall	Jambook	Narri	Nakka	Kola	Kola	Salla	Nohrie	Ko'oo	...	...
Birth	Junnumkar	Pergalm	Kautadi	Kola	Prasut	Wokin	...	Jannas	...	...
Marriage	Bewaha	Kalyanam	Pentli	Lagan	Lagan	Beha	...	Hurwo	...	...

ENGLISH.	SANSKRIT.	TAMIL.	TELUGOO.	GUZERATTEE.	MHARATTEE.	COHURIE.	BOWRIE.	TAREMOOKEE.	KORAWAEE.	BRATOOREE.
Death	Mrikthoo	Saagalam	Sao	Mouat	Mella	Murgoo	On	Mur'go	Suralla	Tatta
Hot	Oashun	Soorra	Oorgoo	Onoo	Wasnoo	Tattoo	Seetul	Garn	Thand	Sheela
Cold	Thaud	Arootoo	Saldi	Tharoo	Thand	Sheela	Wadial	Thad	Thand	Muthoe
Great	Praood	Pirrs	Pedadi	Nothnoo	Nota	Nuthoe	N'hanti	Nato	...	Nankia
Small	Lahan	Chinnala	Chinadi	Nana	Lahan	Nankia	Khrah	Nahango	Narad Ketso	Sarya
Bad	Wye	Katadoo	Chidadi	Nakaroo	Wye	Nawie	...	Bess, Changloo	Méné	Nikko
Good	Samiehemum	Chidadi	Munchadi	Saroo	Changla	Aehwat	Hullo	...	Logo	Juldee Bhigi
Quick	Tewra	Shigrun	Tirri	Ootawa	Jaldie	Judkardie	...	...	...	Hulloo
Slow	Shunni	Mulloom	Medigoo	Hurwé	Hullo	Hullia	...	Bookh	...	...
Hunger	Shuddha	Passi	Akbi	Bookh	Bookh	Tursi	...	Tars	...	...
Thirst	Trish	Tavum	Dupaki	Tirs	Piass	Kera	Keldie	Wasro	Kero Kuttie	Parra
Call	Waso	Kunoo Oti	Doora	Wachroe	Wasroe	Sussia	Dhantrie	Susroe	Kundelli	Sussa
Hare	Sussar	Mossyl	Koondel	Sussoo	Sussa	Gudha	Gudhanoo	Gadhroo	...	Gudhie
Ass, Male	Garho	Kalhe	Garrde	Gudhaaroo	Garrhoo	Gudhie	Gudharie	Gudhri	...	Ghar
— Female	...	Putta Kalidé	Aa Garrdê	Gudhairee	Garrhiwi	Sumlie	Khumlié	Kooroo	Perzah	Kash
Kite	Ghar	Prandu	Gedda	Khalai	Ghar	Kagla	Kogroo	Joro	Papoos	...
Crow	Kag	Kaka	Kaki	Kagra	Kaora	Kasa	Chumpalé	Khari	Selhi	...
Shoe	Jora	Papoos	Papoos	Joro	Jora	Kurra	Turwar	Lugroo	Ketti	Turwar
Sarhi	Porawé	Catti	Koka	Sarhi	Lugra	Turwar	Kajuloo	Turwar	Kart	Kala
Sword	Keelita	Karp	Nalpo	Turwar	Kalung	Kaloo	...	Kala	Walla	Dhowra
White	Shoobra	Virle	Telkoo	Oojroo	Saped	Rathro	...	...	...	Peela
Red	Ratawai	Manjoo	Teer pu	Ratho	Tamburum	Pela	Khoondur	Lall	...	Herwa
Yellow	Petawar	Virle	Patsadi	Peloo	Peola	...	...	Puloe	Pusroe	Nela
Green	Heerwar	Hitché	Pasroo	...	Heerwa	...	...	...	Godmi	Gehoon
Blue	...	Neelum	Nelpoo	...	Parwa	Gehoon	...	...	Man	Atta
Wheat	Ghodoon	Godmi	Godmalloo	Goun	Goun	Attee	Gohoon	Gahcoo	...	Chiekie
— Flour	Choorn	Man	Pindi	Attee	Kuncek	Lote	...	Peet	...	Moondhi
Grinding Stone	Ghirt	Yendrum	Terigalay	Ghatti	Ghirtée	...	Gilttrie	Mahtoe	...	Akhoe
Head	Kuppul	Talli	Talla	Mathio	Dooka	Mathoe	Goddoo	Dolo	...	Luk
Eye	Doli	Kunoo	Kanloo	Ankh	Nak	Ankhi	Dolo	Nak	...	Kunnoo
Nose	Nashik	Nook	Mookka	Nak	Nak	Nak	Nak	Kan	...	Hut
Ear	Karn	Kaddoo	Chouloo	Kan	Kan	Hath	Hatha	Pug	...	Pae
Hand	Hast	Kalée	Chai	Kan	Hath	Pae	...	...	...	Bode
Foot	Kall	Kall	Kaloo	Pug	Pae	Angotha	...	Angoto	...	...
Thumb	Ankta	Pert Virim	Bornell	Angaboe	Angotha	...	Bote	...	...	...

*Vocabulary of Goand and Cole Words. From Dr. VOYSEY'S MSS.
Ellichpoor, 16th December, 1821.*

We took the Goand, our guide, with us down the hill to our tents, for the purpose of examining him more closely, and writing a small Vocabulary of his language. He spoke Hindoosthanee and Marhatta with great fluency, and we found not the slightest difficulty in making him understand us. I asked him his diet, to which he replied, buffalo's flesh, hog's flesh, &c. There was some equivocation concerning his eating cow's flesh, which he first admitted and afterwards denied; his objects of worship were Aboo Bekker below the hill, and Baum Deo upon the hill. The following is the vocabulary of words:—

<i>English.</i>	<i>Coour Goand.</i>	<i>Marhatta.</i>
man,	hejuh ? dota.	
woman,	juffare.	
water,	da,	to ask, komruju.
fire,	singhel.	
earth,	kansa,	dohree.
stone,	yotha.	
tree,	seeng.	
honey,	shuhud,	doomboor.
milk,	doodb,	dedum.
hill,	doongur.	
house,	oarra.	
grass,	jhana,	jhana.
mouth, (1st) chaboo,	koto,	ota.
eyes,	moonh,	meht.
nose,	meht,	moonh.
hair,	ap.	
bread of wheat jowarris,	sokra.	
flesh,	jeloo.	
cow-dung,	shena.	
urine,	kooknum.	
to give,	ikija.	
to bring,	salija,	lana, lena ani.
to drink,	noweja,	dasalija.

<i>English.</i>	<i>Coour Goand.</i>	<i>Marhatta.</i>
to eat,	jomeja.	
to strike,	kwageja.	
to call out,	hujeeja.	
to sleep,	giijeeja.	
to rise,	bidija,	hujoomen.
to sit,	soobangeja.	
to ask where is he gone,	chota walunja.	
to bind,	tolkeja.	
to open,	itikeja.	
wine,	seedho,	daroo.
to run,	saroobija.	
1,	mea.	
2,	bariah.	
3,	aphe.	
4,	uphoon.	
5,	munace.	
6,	turrume.	
7,	aya.	
8,	ilhar.	
9,	arhe.	
10,	gyl.	
11,	ekrah.	
20,	bees.	
100,	chedy.	
stars,	ipeel.	
god,	gomoie sun.	
penates,	mootiah.	
draw god,	kawra.	
bedstead,	parkoum.	
many,	gonai.	
tiger,	koda.	
antelope,	gotharic.	
buffalo,	butkil.	
sambur,	roec.	
cotton,	capoos.	
bamboo,	mat.	

Memorandum.

It is remarkable that no two words are similar, with the exception of doongur and jharra. The Goands south of the Nerbudda are called Coour.

Choka near Hoshungabad 12th March, 1823.

Two Goands came and gave me the following synonyms in their language to those of the Goands of the Gawilghur range, whom they call Coour. They neither eat or intermarry, but consider themselves a distinct tribe.

<i>Goand.</i>	<i>Pl.</i>	<i>English.</i>	<i>Goand.</i>	<i>English.</i>
wurra,	mansa,	man.	jemra,	strike.
mace,	air,	woman.	wonaro,	to call.
yeer,		water.	namseen,	sleep, nerma.
kis,		fire.	teda,	open, tunda
durtee,		earth.	tunda,	rise.
tonghee,		stone.	lul,	wine.
murha,		tree.	sookoom,	stars.
phookee,		honey.	permesur,	god, permesur.
pall,		milk.	parapen,	village god, hunooman.
pallme,		ghee.	peemal,	penates, doolooopen.
kone,		house.	kuttool,	bedstead.
todee,		mouth.	wullai,	many.
kunk,		eyes.	hermee,	buffalo, yermee.
			mawinda,	thulma, sambre.
musur,		nose.		male, dad.
			peerka,	a child, unturra.
chootee,		hair.		female, bien turra.
saree,		bread.	jado,	a boy's name.
soree,	khaurk,	flesh.	meengo,	aman's name.
sropie,		cow-dung.	bhao,	a man's name.
seemke,		to give.	coorap,	buttermilk.
turraka,		to bring.	goknasaree,	wheaten bread.
oonjena,		to drink.	kola,	
tinjena,		eat.	oonka parsi,	language.

At Anund, where I examined a Cole, I found the words in general the same with those of the Coour Goand of Ellichpoor; the numerals exactly the same. I was informed of this circumstance before by Wilson, who

had ascertained the fact from Captain Jackson. The number of similar words is about three-fourths, including the verbs, which appear to have the same radical.

Vocabulary taken at Chunooh, 2d April, 1824.

man,	hoko.	cat,	joomemen.
woman,	herako.	strike,	allumrooya.
water,	da.	call out,	koorkoortooweemen.
fire,	singhel.	sleep,	geteemen.
earth,	hausu.	rise,	tingoomen.
stone,	sukum.	sit,	doobmen.
tree,	darao.	ask,	senwaboo.
honey,	doomoor.	bind,	tolemen.
milk,	towah.	open,	rahemen.
hill,	booroo.	run,	neerum.
house,	oah.	stars,	gpeel.
grass,	„	god,	„
mouth,	ah.	penates,	„
eyes,	meht.	bedstead,	parkoum.
nose,	mooanh.	many,	isoo.
hair,	oop.	tiger,	kola.
bread,	„	antelope,	kotharie seleep.
flesh,	geloo.	buffalo,	bitkilo.
cow-dung,	gooree.	sambur,	saram,
urine,	dooki.	cotton,	katsoom.
to give,	immeymen.	bamboo,	mart.
bring,	haraow koomen.	wine,	arkee mad kum.
drink,	noweemen.	arrow,	sarr.

Numbers.

1,	mea.	[boonga.	9,	arhe.
2,	bariaba,	desoom-	10,	gyl.
3,	aphia.		100,	mesye.
4,	uphoom.		1,	kurrea.
5,	munace,	singbooen.	2,	boepace.
6,	turrune,	diggy.	3,	korar,
7,	aya,	kora soon-	4,	angreea.
8,	ilbar.	[die.	5,	champeca.

6,	chakee.	14,	gojoh.
7,	kandehum.	15,	koonteah.
8,	sirka.	16,	barjo.
9,	lagoorec.	17,	seedhoo.
10,	sinko.	18,	diggy.
11,	sooreen.	19,	soondee.
12,	poortee.	20,	buddra.
13,	marlah.	21,	gagoree.

ON THE HISTORY OF ARAKAN.—*By Capt. A. P. PHAYRE, Senior
Assistant Commissioner Arakan.*

The following sketch of the history of Arakan I put forward chiefly in the hope of attracting others to this field of enquiry. A compilation was made at my request from various ancient chronicles, by *Nga-mi*, one of the most learned among the literati of his country, and I proceed to furnish an epitome of its contents. Many copies of the *Ra-dza-weng*, (History of Kings,) are to be found among the Arakanese, differing from each other in details, being ample or scanty in the narrative, according to the research or imagination of the authors, but, all agreeing in the main facts of the national history. On the Burmese conquest of the country, the ancient chronicles were sought after with avidity, and destroyed or carried away, in the hope apparently of eradicating the national feeling. These efforts were, however, futile, many of the ancient books were secretly preserved, or carried away by the owners on their emigration to the adjoining British territory, where many chiefs anxiously watched for an opportunity to recover their country.

The Arakanese generally take a deep interest in the history of their native land; they still regard it as being one of the most favoured countries of the world, and as having been, in ancient times, among the most powerful of kingdoms. Their pride even makes them affect to regard the occupation of it by the British, as a national re-conquest from the Burmese, achieved by themselves, because a number of Ara-

kanese refugees, being formed into a levy, accompanied the British army of invasion, and fought by its side.

The Arakanese are of the same stock as the nation which inhabits the valley of the *Era-wadi*; their national name is *Myamma*, a word which by the Burmese is pronounced *Ba-ma*, and thence changed by Europeans into Burma. They are a section of that nation, separated from the parent stock by mountains, which, except towards the southern extremity of the range, admit of little intercourse from one side to the other. Hence those Arakanese living in the northern portion of the country, adjoining Bengal, have some peculiarities in dialect and manners. There they touch upon a people totally different from themselves in race, in language, and religion. There the original Mongolian features of the people have become considerably modified, the nose being more prominent and the eyes less oblique than they are found to be among the people of the South of Arakan and in Burma Proper. Whether this change is the result of a partial intermixture of race, or other causes, I am not prepared to say.

The province of Arakan, taking that term as applied by the British, includes all the highland and lowland territory which extends from the head of the *Naf* estuary in lat. $21^{\circ} 10'$ N. down to Cape Negrais in lat. $16^{\circ} 2'$. The great mountain range called *Yu-ma*, or *Yō-mu*, runs in a general direction nearly due North and South, forming the Eastern boundary of the country. On the West is the sea, and as the coast branches out from the South in a N. N. W. direction, the country from being very narrow at its southern extremity becomes on the Northern border about one hundred miles broad from East to West. The Northern, and by far the richest portion of this tract, or that lying between about 20° and $21^{\circ} 10'$ N. lat. was alone called by the natives *Rakhaing-dyi* or *Rakhaing-land*, while the rest of the country, consisting of the islands of *Ran-byi* and *Ma-oung*, (Cheduba,) and the district of *Than-dwai*, (Sandoway,) was included in the general term of *Rakhaing-taing-gyi*, or Rakhaing kingdom.

The word *Rakhaing* appears to be a corruption of *Rek-khaik*, derived from the Pali word *Yek-kha*, which in its popular signification, means a monster, half-man half-beast, which like the Cretan Minotaur, devoured human flesh. The country was named *Yek-kha-pu-ra* by the Buddhist Missionaries from India, either because they found the

tradition existing of a race of monsters which committed devastations in a remote period, or because they found the *Myam-ma* people worshippers of spirits and demons. It is possible that these traditions of human-flesh-devouring monsters, arose from exaggerated stories concerning the savage tribes who inhabited the country when first the *Myam-ma* race entered it. The names given to some of these monsters bear a close resemblance to names common among the *Khyeng* and *Kami* tribes to this day. Popular superstition still assigns to each remarkable hill and stream its guardian *Nat* or spirit, to whom offerings are made; and this elf-worship is the only acknowledgment of a superior power made by the wild hill tribes now living within the boundaries of Arakan. From the name of the country *Rakhaing*, the people now generally call themselves *Rakhaings*, as distinctive from the Burmese, though the term is strictly applicable only to those who live in the northern portion of the country, or Arakan Proper.

The *Myam-ma* nation evidently had no knowledge of writing until it was communicated to them from the continent of India or from Ceylon; and this event, if we may judge from the history under review, occurred during the second century of the Christian era. Up to that period therefore we must conclude, that the main facts of the national history were transmitted by tradition; nevertheless we have long tales and details of prior events; these have no doubt partly been invented by successive copyists and commentators, and partly amplified from original facts. The Arakanese being instructed in letters and religion by people from the West, gradually mixed up their own genuine traditions with the histories or fictions of their teachers. As the Buddhist religion taught that before the advent of Gautama, who flourished about the middle of the sixth century B. C., there had existed during the present world-era three successive *Budhas*, whose lives and the intervening periods occupied an indefinite duration of time, it thence became the ambition of the newly-taught disciples, to blend their line with those nations among whom the *Budhas* had appeared; hence arose confused stories of monarchs from various countries in India establishing themselves and building cities in Arakan; all these may be laid aside as fiction. The duration of each king's reign from a remote period is given in the history, the date assigned for the accession of many of the sovereigns since the year 863, corresponding to

A. D. 1501, are confirmed by coins, some of which are in my possession.

Having deemed it necessary to say thus much by way of preface, I now proceed with my epitome of the history.

The writer opens with a declaration of devotion to the three treasures : “ Deity, Law, and the Assembly of the Faithful,” and invokes the angel *Tho-ya-tha-ti*, that he may be inspired with eloquence. He then states his plan as follows :—

“ I propose to give the history of all the kings sprung from the *Bud-den-ggu-ya** race, descendants of king *Maha-tha-ma-da* in lineal succession, who reigned in *Yek-kha-pu-ra*, that royal golden *Rakhaing* land, which is like the city of *Maha-tho-da-tha-na*,† ten thousand *yu-ja-na*‡ in extent, placed on the summit of Mount *Myen-mo*, two hundred and fifty thousand *yu-ja-na* in extent, and in attacking which the fierce *A-thu-yas*§ are constantly defeated, which is situated on the surface of *Jam-bu-di-pa*,|| thirty thousand *yu-ja-na* in circumference, being honorably placed at the summit, where all its enemies cannot prevail against it.”

Having pronounced this eulogy upon his country, the historian proceeds to narrate the origin of mankind.

“ When the present world-era first arose, *Byahmas*¶ coming to the earth, saw in the centre thereof, five tiers of lotuses, together with the eight canonical requisites,** having plucked these, a *Byahma* interpreting the omen, said : In this world-period there will appear five Budhas,

* This race of kings is stated to have first reigned in *Ba-ru-na-thi*, or Benares.

† A city on the summit of Mount *Myen-mo*, which is the centre of the Sekyah system. A Sekyah system comprises a central *Myen-mo* Mount, the surrounding seas and islands, the celestial regions, and the infernal regions. (Judson's Bur. Dicty.)

‡ *Yu-ja-na*, a measure of distance comprising about thirteen miles.

§ *A-thu-ya*, fallen *Nat* or Spirit, formerly driven from the summit of the *Myen-mo* Mount. (Judson.)

|| The world we live in, being the southern of the four great islands which surround the *Myen-mo* Mount.

¶ *Byhama*, a celestial being, superior to *Nats*.

** These consist of, 1. *Theng-kan*, a priest's upper yellow garment, or mantle; 2. *Theng-boing*, a priest's lower garment; 3. *Fakot*, part of a priest's dress, worn as a scarf across the shoulder; 4. *Khaban*, the girdle; 5. *Kharoing*, water dipper; 6. *Thengdon*, or razor for shaving the head; 7. *Theng-bit*, earthen dish for holding rice; 8. Comprising two articles of use, viz. *Ka-nyit* or stylus for writing on palm leaf, and *Ap*, or needle, for sewing the canonicals.

therefore it will be called *Badda-kap-kam-bha*.* Those great *Byahmas* having enlightened the four great islands, by the brightness of their bodies, and having eaten of the crust of the earth,† returned to their own celestial abodes. Some of these *Byahmas* having thereby mysteriously passed to another state of existence, could not return; they became new beings, and nine were allotted to each of the four great islands. Then eating of the fruits of the earth, they became subject to lust, guilt, ignorance and passion; from them five females were first formed, and afterwards four males. Thus were the four classes of men‡ established, and gradually spread abroad; these (four pair) separating into families, one woman remained; she was intended to be concubine to the king."

The history next proceeds to relate, that men multiplied, and wickedness increased in the world; at length appeared the embryo of *Kauk-ku-than*, the first *Budh* of the present period; he reigned in *Ba-ra-na-thi* under the name of *Maha-tha-ma-da*, the first of the many who bore that title; his descendants were in process of time called Brahman kings. In their time, many of the sacred books were revealed, and all earthly objects received their names. The length of man's life was ninety millions of years.

A king of this race named *Wa-ya-adz-dzyau-ya* had sixteen sons; the world was divided amongst them, and the city of *Ram-ma-wa-ti*, built by *Nats*, near the present town of *Than-dwai* (Sandoway,) fell to the share of the eldest, named *Thamu-ti-de-wa*. His descendants reigned in *Ram-ma-wa-ti*. In their time, several sorts of grain were given to man; weights and measures were first used, and men were taught various useful arts. Some kings of this race are represented as being of Brahmanical, and some of Budhist, faith. *Ra-ma-wa-ti* was subject to the kingdom of *Ba-ra-na-thi*.

Many ages after, when the Budh *Kau-ku-than* had passed away, a king named *Tsek-kya-wa-de* reigned in *Bara-na-ti*. He was the

* *Bad-da-kap-kam-bha*, a grand period of time distinguished by five *Budhs* in succession. (Judson.)

† The former world had been destroyed by fire, which had finally been extinguished by water, the drying process had caused a clayey crust to form on the surface, described as being of a delicious flavour.

‡ These consist of, 1. Kings, in Pali *Khat-ti-ya*; 2. *Brahma-na*; 3. Merchants, *Wethi-ya*; 4. The people at large, *Thud-da*. This classification has never actually existed in Arakan.

Budh *Gau-ta-ma*, in an embryo state; in a subsequent birth, he became *Man-dat Meng*, or sovereign of the Sekyah system; he is therefore now allotted this title in anticipation; while king of *Ba-ra-na-thi*, he had four sons, among whom he divided the world. To the eldest *Thu-ri-ya Thau-da* he gave the central portion and the city *Pa-ta-na-go*; to the second, *Tsan-da-than-da*, the northern portion and the city of *Pin-tsa-pu-ra*; to the third son, *Ma-ni-thu-bha-was*, he gave the southern portion and the city of *Randa-pu-ra*; to the fourth son, *Kan-myeng*, were allowed all the countries inhabited by the Burman, Shan, and Malay races from *Ka-thi* (Munnipur,) to the borders of China.

Kan-myeng came to *Ramma-wa-ti*, and dispossessing the descendant of *Tha-mu-ti-de-wa*, married a princess of that race named *Thu-wan-na-ga-hlya*; while *Maha-ra-dza-ngya*, the male descendant of *Tha-mu-ti-de-wa*, was sent to govern the city of *Wetha-ti* in Arakan Proper. "*We-ra-khaings*," says the historian, "had from the first, from the time of *Tha-mu-ti-de-wa*, been in possession of *Ram-ma-wa-ti*;" yet he next proceeds to narrate how king *Kan-myeng* peopled his dominions with various tribes, and among the rest, appear the progenitors of the Arakanese, as being now brought to the country for the first time; in short, the attempt to reconcile national traditions with the Buddhist writings, has produced inextricable confusion.

Kan-myeng collecting men from different countries of the west, (Hindustan,) having a variety of languages, brought them to *Ram-ma-wa-ti*; they then asking for subsistence and a place to live in, to the first who so applied he gave the name of "*Thek*,"* and their language being different from the rest, they lived separate. The king then assigns names to the rest of his followers, (a far-fetched etymology being given for each of them,) who became the progenitors of the various Indo-Chinese tribes and nations. The names of the tribes after "*Thek*" are as follows: *Khyeng*,† *Myo*,‡ or *Myu-khan-tsaung*-

* This is a small tribe living among the hills in Arakan Proper; they are described in an "Account of Arakan" in the Jour. Asiat. Soc. for 1841, p. 683, under the name *Doing-nak*.

† A tribe living amidst the *Yu-ma* mountains.

‡ A tribe now nearly extinct, formerly living on the *Kula-dan* river in Arakan Proper, on the present possessions of the *Ka-mis*, with whom they are confounded by the modern Arakanese.

khyan,* *Kyip*,† *Shin-du*,‡ *Mu-du*, *Pyu*§ *Me-kha-li*,|| *Dzeng-me*,
Leng, *Tan-teng-tha-ye*,¶ *A-tsim*,** *Leng-khe*,†† *Pyan-laung*,‡‡ *Ka-*
the,§§ *Kan-ran*,||| *Tho-dun*, *Ta-loing*,¶¶ *Kan-ti-ka-myum*,* * *La-*
woik and *La-gwon*.†††

The race of *Kan-myeng* reigned in *Ram-ma-wa-ti* for a period of years, expressed by an unit followed by one hundred and forty cyphers. During this time the Budhs *Kauk-kuthan*, *Gaw-na-gun*, and *Ka-tha-ba* flourished and passed away.

The history has now arrived at the close of what may be called its Indian period, and in the new chapter that opens, the leading events appear to be derived from national tradition. The names which are given above to the Arakanese and Burmese; viz. *Kan-yan* and *Pyu*, we may infer to be original names for two of the many petty tribes into which the *Myam-ma* nation was probably divided, before it was united into one comparatively civilized people by the instruction of the Buddhist Missionaries from India. The seat of the *Pyu* empire was *Prome*, after the destruction of which city, it was re-established at *Puggan*, A. D. 107.

The historian now changes the scene of his narrative to countries east of Arakan. The chapter opens thus:—

“*Maha-tha-ma-da*, the sovereign of *Jam-bu-dip* dying, the religion of the Lord *Ka-tha-ba* being then in the ascendant, (the) life (of man) extended to thirty thousand years. In that time in the country of *U-ta-ya-ma-dhu-ya*,‡‡‡ *Tha-ga-ya De-wa* was king; (he) in power,

* A small tribe living among the *Ka-mis*.

† A tribe near Mannipur.

‡ A tribe N. and N. E. of the *Ka-mis*.

§ *Pyu*, a name by which a portion of the Burmese nation was formerly designated.

|| A Shan tribe.

¶ A tribe said to live on the borders of China.

** Now called *Pashyu*, the Malays.

†† A tribe in Arakan Proper, or rather the hills N. W. of it.

‡‡ A Shan tribe said to be famous for growing tea.

§§ The Munnipuris.

||| Said to be the present *Rakhoing* race, or a portion of them termed *Khyoung-tha*.

¶¶ The *Taloing* is said to have united with the *Tho-dun* tribe.

* * A tribe now called *Myun* in Arakan Proper.

††† These two tribes are said to be the ancestors of the Siamese.

‡‡‡ By this term is meant the country North from Ava, what is now called *Mo-gaung*, the valley of *Hu-kung*, &c.

glory, ability, and skill, was perfect. From that king sprung a son *Maha Tha-ga-ya*; to him were born two sons, *Tha-ga-ya* and* *U-ba-tha-ga-ya*. At the same period in the country *A-thet-teng-tsa-na*,* reigned a prince of the same race named *De-wa-keng-tha*; to him was born a son *Maha-keng-tha*, and to *Maha-keng-tha* were born two sons, *Keng-tha* and *U-ba-keng-tha*; also a daughter *De-wa-kap-pha*. At the very moment of that princess's birth, the astrologers (said) thus: From this princess will be born ten sons, who will completely destroy king *Keng-tha's* line."

Maha-keng-tha determines therefore to place his daughter in a strong building with one attendant, and surrounded by guards, to prevent the approach of any one. *Maha-keng-tha* dying, his eldest son *Keng-tha* ascends the throne.

At this time *Tha-ga-ya* ascends the throne of *U-ta-ya-ma-dhu-ya*; he becomes suspicious of his younger brother *U-ba-tha-ga-ya*, who is obliged to fly for his life; he comes to *A-thet-teng-tsa-na*, and is hospitably received by king *Keng-tha*. The fugitive prince by chance comes one day in sight of the building where the princess *De-wa-kap-pha* is immured; the history proceeds.

"The Prince *U-ba-tha-ga-ya* beheld her from a distance; the princess appeared dazzling as the sun and moon, very beautiful; shining in perfection, like the heavenly *Nat Thu-dza*; † from the secret influence of acquaintance in former existences, they had an inclination of the mind towards each other. The prince by many artifices silently concealing himself, conveyed a message through the slave girl *Nan-di-gaw-pa*; she indeed is young and indiscreet, and not considering consequences, delivered the message to the princess, according to instructions; having obtained the consent of the princess, the prince repeating charms and spells, and making himself invisible, reached the building, and there united with the princess. Before long she being with child, *Nan-di-gaw-pa* and the watchmen fearing for themselves, on account of that calamity, represented it to king *Keng-tha*."

It is finally determined by the king, that as the prediction of the astrologers applies only to male children, his sister shall be given in

* This is said to be Pegu.

† Wife to *Thi-kya Meng*, the king of *Nats*.

marriage to *U-ba-tha-ga-ya* ; if female children are born, they are to be spared, but if males to be destroyed. The princess first bears a daughter who dies young ; then ten sons in succession, whose lives are preserved by an artifice, and last, another daughter. The two eldest sons are named *Wa-thu-de-wa* and *Ba-lade-wa* ; the daughter *Eng-tsa-na-de-wi*. The subsequent story refers principally to these three.

The ten sons grow to man's estate without the real history of their birth being known ; they grievously oppress the people of the country, till at length complaints are made to the king ; he orders them to be seized, but they elude their pursuers and fly to a distant country, where through the favour of a great sage and devotee, they obtain magical weapons from the Nàts ; they then return, attack the king's palace, and kill both him and his brother. Thus they become masters of *A-thet-teng-tsa-na*. Next they attack the neighbouring countries, and having conquered *A-yudz-dza-pu-ra*, or Siam, turn their arms against *Dwa-ya-wa-ti*, the Pali name for the present town of *Than-dwai* (Sandoway), which was then ruled by *Na-rin-da*, a king of the race of *Kan-myeng*.

Arriving by sea at the mouth of the *Than-dwai* river, they are foiled in their attempts to find the city, which by some is said to have the power of soaring above the earth, out of reach of danger, and by others this is said to have been an illusion produced by its guardian *Bhi-hi*. By the advice of a *Ya-the*, or hermit, the brothers propitiate the *Bhi-hi* with offerings, and she then withdraws her protection ; the ten brothers now bind the city with an iron chain to the earth, from which circumstance the present name *Than-dwai* (iron bound) is deduced. The city then falls into the hands of the invaders.

The brothers divided their conquest into ten shares, but made *Than-dwai* their chief capital. After sometime the eight younger brothers are slain in a conflict with the people of the country, who appear to have risen against them ; *Wa-tha-de-wa* and *Ba-la-de-wa*, with their sister *Eng-dza-na-de-wi*, are obliged to fly ; they are accompanied in their flight by a *Pun-na*, or Brahman, who now appears for the first time.

These four direct their flight Northwards : arrived at a forest in the present circle of *Toung-up*, they meet with a *Bhi-lu*, who has assumed the appearance of a man. This is king *Keng-tha* who comes to revenge

the murder committed upon him in his previous existence. He invites them to wrestle, and the challenge is accepted by *Ba-la-de-wa* who is soon killed and eaten by the *Bhi-lu*. The three others pursue their journey; *Wa-thu-de-wa* is accidentally killed by a dart thrown by a hunter at the moving grass, where he supposes an animal is concealed; from thence the *Pun-na* and the Princess *Eng-dza-na-de-wi* go on together; most of the names of places on the coast are derived from incidents occurring to them during this journey. They continue on until they arrive at *We-tha-li*, the chief city of Arakan proper, and the remains of which still exist. They find the race of kings descended from *Ma-ha-ra-dza-ngya* is extinct; the people of the country elevate the *Pun-na* to the throne; he is married to the Princess *Eng-dza-na-de-wi*, and after a long and prosperous reign, their son *Brahma Thun-da-re* succeeds; he marries a Princess of the former dynasty, named *The-rin-pa-re*, and their descendants fill the throne for an indefinite period. During the time of this dynasty, ninety-nine cities were built or Townships established to the East, and ninety-nine to the West, of the *Ga-tsha-bha*, the chief river of Arakan.

The story of the ten brothers, sons of a northern prince by a Taloring Princess, coming into Arakan, seems to refer to the first arrival of the *Myam-ma* race from the Eastward, and must be derived from genuine tradition. The tale of the *Pun-na*, or Brahman, is of course an interpolation of later times, though it is not easy to understand why a Buddhist nation should invent this fable, and represent a Brahman as the progenitor of one of their dynasties. All the names given to these personages it will be remarked are Pali; indeed Native names for kings and great persons do not appear in the history until a very late period.

In the latter times of the *Pun-na* race, there lived together in the *Hi-ma-won-da*,* a monkey and a deer. A violent storm arising they were carried away by a flood, and at length floated to the head of the *Ga-tsha-bha*, or *Kula-dan*, river, and from thence to *Khouk-taw-toung*, a hill on the bank of that stream. There the monkey and deer entered the forest and lived. The deer produced thirty-two children; some

* An immense but imaginary forest, in which most of the wonderful things mentioned in the Buddhist scriptures are said to be. (Judson.)

were in the human shape, others were *Bhi-lus* ; these *Bhi-lus* ravaged the country, devouring men and women ; at length the last king of the *Pun-na* race was destroyed by them, but the queen and a princess were saved.

This legend perhaps refers to the warfare the Burman race had to wage against the aborigines, the present savage hill tribes, who already possessed the country when they themselves entered it, and who probably long after struggled for independence. The *Bhi-lus* are described as lying in ambush, and seizing all who ventured out of their houses after dark : the description in fact much resembles that of a partisan warfare carried on against invaders. The names given to some of these *Bhi-lus*, bear a resemblance to names common among the *Ka-mi* tribe to this day ; and their fabled origin from wild animals of a forest far to the North, beyond the source of the *Kula-dan* river, agrees pretty nearly with the present received opinions of the *Rakhaings* concerning the *Ka-mis*, viz. that they originally came from the North, and are little better than wild beasts.

To remedy this sad state of affairs, a hero at length appears to the rescue of the *Myam-ma* race, whose birth is thus traced.

In the country of *Kap-pila-wot*,* reigned a powerful king named *Adz-dzun-na* who determined to abandon his kingdom and become a hermit. He retired to the *Hi-ma-won-da* forest, and wandering on Southwards, reached at length the source of the *Kula-dan* river ; there he determined to live far from human habitations in devout retirement under the shade of a *pipal* tree. The wild animals came to do him homage, and amidst a herd of deer, appears a doe called *In-da-ma-yu*, described as descended from a lion, which in a former existence had been wife to the king *Adz-dzum-na* ; it had been foretold by *Nats* that as the country *We-tha-li*, (Arakan) suffered from *Bhi-lus* born of a deer, so should it be rescued and restored by a man produced from the same animal. A violent tempest arises ; the doe *In-da-ma-yu*, is carried by a flood down the *Kula-dan*, and cast ashore near the mouth of the *Mi-khyoung*, a tributary stream which joins the *Kula-dan* in its upper course ; there in the midst of the forest she brings forth a hu-

* A city in Hindoostan (Capilavastie, in Rohilkhand.)

man child. A chief of the tribe called *Myu*,* was out with his dog, which while ranging the forest sees the child in the jungle and commences barking; the *Myu* chief approaches, takes the child home and adopts him; eventually this child marries the chief's daughter, and being furnished by the *Nats* with magic weapons, clears the lowland country of the *Bhi-lus*, who hitherto had ravaged it. He is acknowledged as king, marries the female descendant of the *Punna* dynasty, and builds a new capital, which is called *Dhi-ngya wa-ti*. He is called *Ma-ra-yu*, a derivative from his mother's name.

From this king the Arakanese historians profess to furnish lists of successive sovereigns without a break up to the time of the Burman conquest in A. D. 1784. *Ma-ra-yu* gained the throne at the age of 18 years, and died after a reign of 62 years, aged 80.

Of this race, according to *Nga-mi*, though this does not exactly agree with other accounts, there reigned fifty four sovereigns throughout a period of 1833 years; at this rate *Ma-ra-yu* ascended the throne about 2658 years B. C.

At the end of that period an insurrection occurred, and three nobles successively usurped the throne. The queen of the last descendant of *Ma-ra-yu* escaped with her two daughters, and retired to a hill named *Ni-la-pan-toung*.

About this time in the country of *Theng-dive*† there lived a king *Abhi-ra-dza* who had two sons; they quarrelled regarding the succession to the throne, and the eldest, called *Kan-Ra-dza-gyi*, was obliged to fly. He is represented as descending with a large army the river *Era-wa-ti*, and then ascending the *Khy-eng-dweng*. He crosses the *Yu-ma* mountains from the present province of *Yau*, and reaches the upper course of the *Mi-khy-oung* in Arakan proper; there he establishes himself on a well known hill, called to this day *Khy-oung-pan-toung*.

* I am not sure whether by this name is meant the tribe now called *Toung Myu*, of which only a few scattered remnants exist, or whether it is merely another name for the present *Ka-mu* tribe. Some Arakanese say that in remote times the *Myu* was a very powerful tribe on the *Kula-dan*, which has been driven out of its possession by the *Ka-mis* who came from the North; but all the Arakanese literati I have asked have but vague ideas of the lineage of the hill tribes now existing.

† This is Tagoung N. of the city of *Aba*, the ancient capital of the empire; vide *Journal of the As. Soc* for March 1836, where the account of the two sons of *Abhi-ra-dza* is related by Colonel Burney from the *Burmese Chronicles*, precisely as given in this history by *Nga-mi*.

The queen of the *Ma-ra-yu* dynasty there joins him, and he marries her two daughters; he remains on this mountain for twenty four years before he ventures to descend to the plains, which during that period remained subject to usurpers; at length he comes and makes *Dhi-ngya-wa-ti*, his capital; this is called the second dynasty of that city. This conquest appears to be a second irruption of the people from whom the Arakanese themselves were descended, or perhaps of a mixed horde of *Myam-mas* and *Shans*. *Kan-Ra-dza-gyi* is succeeded by his son *Thi-la-ra-dza*. Of this dynasty twenty-eight kings reign in succession, throughout a period of 971 years. By this chronology *Kan-ra-dza-gyi*, crossed the *yu-ma* mountains B. C. 825.

At the end of this period *Tsan-da Thu-ri-ya* ascends the throne. In his time the *Bridhi Gautama*, "blossoms" in the country called *Ka-pi-la-wot*; while lodging in the *Dze-da-won Kyoung* or monastery in *Tha-wot-ti*,* he is invited to Arakan by the king. *Gautama* arrives, and relates his various forms and existences during previous births in Arakan, and points out the Pagodas which contain relics of himself. He is received by the king with the reverence due to so exalted a personage. An image, being an exact resemblance of the *Bridh*, was permitted to be cast, and was set up at *Ma-ha-mu-ni*, where a temple was built for its reception, the ruins of which still exist. This image, to which miraculous powers were attributed, remained at *Maha-mu-ni* until carried by the Burmese to Ava, where it still remains. The Lord *Gautama* then confirmed the name of *Dhu-ngeja-wa-ti* given to the country by former *Budhs* in consequence of its great fertility; and leaving Arakan proper travelled southward to the town of *Than-dwai* from whence he went eastward to the city of *Prome*. The king *Tsan-da Thu-ri-ya*, died after a glorious reign of fifty-two years.† This king is generally reckoned as the head of a new dynasty, since the religion of *Gautama* was introduced during his reign; of this dynasty there reigned in lineal succession twenty-five sovereigns (making fifty-two from *Kan-Ra-dza-gyi*) throughout a period of 642 years.

* Name of a district or city in Hindoostan, (*Sravasti* in *Kosala*.)

† The list of Arakan kings given in the historical and statistical sketch of Arakan by Mr. Paton, published in the 16th Vol. of the *Asiatic Researches*, commences from this sovereign. The chronology of the history I possess differs considerably from that; according to Mr. Paton *Tsanda Thu-re-ya* died A. D. 701; according to *Nga-m's* history A. D. 198.

At the end of this time *Ma-ha-toing Tsan-da-ya*, the lineal descendant of *Kan-Ra-dza-gyi* ascended the throne. The astrologers declared that the destinies of the city *Dhi-ngya-wa-ti* were accomplished; the king therefore went forth from it in the second year of his reign, in the month *Ta-tshoung-mon* of the year 151,* and finally settled on the former site of *We-Tha-li*, called also *Khyouk-hle-ga*, which city was re-established in the month *Ra-tohon* of the year 152. This king died after a reign of twenty-two years. In his time it is stated that several *Ku-la*, or foreign ships, were wrecked upon the Island of *Ran-byi*, and the people in them, said to be Musulmans, were sent to Arakan proper, where they were settled in villages. This king is reckoned the founder of a new dynasty.

He was succeeded by his son in the year 172, who being born when the full-moon was rising, the sun being still above the western horizon, was called *Thu-ri-ya-Taing Tsan-da-ya*. The ninth sovereign of this race is named *Tsu-la-taing Tsan-daya*, who succeeded to the throne in the year 313. In the year 315 he went on an expedition to Bengal (called *Thu-ra-Tan*,) and set up a stone pillar as a trophy at the place since called *Tset-ta-goung*, or as commonly written *Chittagong*, alluding, this history states, to a remark of the king's, (who abandoned his conquest at the request of his nobles) that to make war was improper.

The king returned to Arakan, and being troubled with headache he consulted his wise men, who informed him, that in a former birth he existed as a dog in a country bordering on China; that dying, his skull fell into the forked branch of a tree, which when agitated by the wind pressed upon the skull, and so influenced the living head of him, now born as a man. The only certain cure was to have the skull removed

* This is the first date that occurs in this history and is equivalent to A. D. 789. As Gautama is said to have visited Arakan during the reign of *Tsanda Thure-ya*, who ascended the throne 642 years before this sovereign, it follows that *Gautama* was alive according to this history in A. D. 147. Now the Arakanese state that this present year 1843 A. D. is the year of *Gautama's* attainment of *Pa-ri-nib-ban* 2387; they acknowledge that this era is derived from sacred books deposited in Burmese monasteries, and appear to admit its correctness, though it militates against their own historical chronology. It is probable that the Buddhist religion was first introduced during the reign of *Tsan-da Thu-ri-ya*, and that the figment of *Gautama's* visit, invented to gratify national vanity, has been ignorantly assigned to the period of that monarch's reign.

from the tree. The king determined therefore to go to China, though he was warned by the astrologers that the time was not propitious. Before going he presented the queen with a magic ring he had received from *Thi-kya*, the king of *Nats*, appointed her to rule over the kingdom in his absence, and directed that in case of his death, he was to be king whom the ring would fit. The king then departed by sea, and passing *Jhan-divai* reached *Henza-wadi* or Pegu; he then ascended the *E-ra-wa-ti* to Prome, at that time the capital of the *Py-u* or Burman Empire, and from thence going on northwards, at length reached the country he was in search of, which appears to have been subjected to *Theng-dive* or *Ta-goung*. There he was honorably received by the king, and soon commenced a search for the tree containing the dog's skull; this being found he caused it to be burnt, and built a Pagoda near the spot. The king remaining a long time as if forgetful of his home, his attendants roused his attention by singing the song of his own country, and then at their solicitation he prepared to return. On reaching the sea, the greater part of the boats were lost, and the king was drowned in the sixth year of his reign. This occurred in the year 319, and is supposed to be effected by the *Naga* or Ocean Monster, at the solicitation of his daughter, in order that she may possess the king, whose wife she had been in a former birth.

The scene of this disaster is laid off the extreme southern point of the coast, a few miles south of Cape Negrais. The chief minister carried the mournful intelligence to the queen; she suspected him of having contrived the disaster, and banished him from the kingdom.

Search was now ordered to be made for one whom the ring, left by the king, would fit. All the men of the country, great and small, were tried, but not one could wear it. People were therefore dispatched to search among the hill tribes. They found two brothers, chiefs of the *Myu* tribe, named *A-mya-tu* and *A-mya-ku*, with the son of the latter *Pe-byu*, casting a net into the waters of the *Mi-khy-oung*. The ring was found to fit all three, and they were brought to the royal city. The eldest of the brothers, *A-mya-tu*, was married to the queen *Tsau-da-de-wi* in the month *Taboung* of the year 319, and was saluted as king. After he had reigned six years, the queen having intrigued with his younger brother *A-mya-ku*, he enticed the latter

into a forest, under pretence of worshipping the mountain *Nat*, and there killed him with an arrow.

The *Pyu* sovereign who reigned at *Prome*, hearing of these transactions, invaded the kingdom to expel the *Myu* chief, but lost his army in the *Yu-ma* mountains, and was obliged to retreat. The king *A-mya* died after a reign of seven years; on his death, his nephew *Pe-byu* married the queen *Tsauda-de-wi* in the month of *Pya-tho* 326.

The city *We-tha-li* was now abandoned, and the king established his residence on the site of the present city of Arakan, then called *Myouk-a*. After *Pe-byu*, had reigned twelve years, the country was invaded by a Shan prince called *Thoa-kheng-bhwa-kye*, who took the royal city, and despoiled the *Maha-mu-ni* temple of its gold ornaments. The king and queen fled to a hill in the upper course of the *Yo* stream, and there remained concealed. These events occurred in the year 338.

For eighteen years from this time the country remained subject to the invaders, and the annalists record no events. The *Taloyings* are said to have possessed *Thau-divoi* during the period. At length the Shan's army retreated, carrying away a number of prisoners, who are said to have been settled at *Tsa-kaing*, near the present city of *Ava*.

Soon after the *Pug-gan* king *Anaw-rahta-dzan*, who appears at this time to have been supreme in the present Burman empire, invaded Arakan, for the purpose of carrying away the celebrated image of *Gaw-ta-ma* from *Maha-mu-ni*, but retired without effecting his object.

After these protracted troubles there appeared a son of the king *Tsu-la-taing Tsa-da-ya*; he was born six months after that king's departure for China, and is represented to have remained concealed among the *Theh* tribe, in the hills on the upper course of the river *Ma-yu*. He is called *Nga Meng-nga-tum*; with the help of the *Theh* tribe, he ascended the throne in the year 356 and established his capital at *Tsam-bha-wet*, on the river *Le-myu*. The kingdom was again invaded by the *Pug-gan* king, and *Nga-meng-nga-tum* was killed after a reign of twenty-four years.

The queen of *Tsu-la-taing Tsa-da-ya* was still living on the *Yo* river; some years before, on the death of the *Myu* chief *Pe-byu*, she had married a nephew of her first husband, named *Tsan-da-ku*. This marriage produced two sons, namely *Khet-ta-theng*, and *Tsan-da-*

theng ; also a daughter *Ge-ri-kuma-ri*. The eldest son married his own sister, (a common practice in ancient times with the Arakanese and Burmese royal families) and with the assistance of *Anaw-ra-hta-dwza*, king of *Pug-gan*, ascended the throne in the year 380. He established his capital at *Ping-tsa*, and died after a reign of ten years. His younger brother *Tsan-da-theng* succeeded him in the year 390. Four of his descendants reigned in succession ; in the reign of the fifth, named *Meng-phyu-gyi*, a noble usurped the throne in the year 422 ; another noble deposed him, but in the year 423, the son of *Meng-phyu-gyi*, named *Meng-nan-thu*, ascended the throne and reigned five years.

The third in descent from him, *Meng Bhi-lu*, was slain by a rebellious noble named *Theng-kha-ya*, who usurped the throne in the year 440.

The heir apparent, *Meng-re-bha-ya*, escaped to the court of *Kyan-tsit-tha* king of *Pug-gan*.

The usurper reigned 14 years ; his son *Merg-than* succeeded him in the year 454, and reigned eight years ; on his death, his son *Meng-Padi* ascended the throne.

During this period, the rightful heir to the throne, *Meng-re-bha-ga* was residing unnoticed at *Pug-gan* ; he had married his own sister *Tsau-pouk-ngyo*, and there was born to them a son, named *Let-ya-meng-nan*. The exiled king died without being able to procure assistance from the *Pug-gan* court for the recovery of his throne. At length the king of that country, *A-laung-tsi-thu*, grandson of *Kyan-tsit-tha* sent an army of 1,00,000 *Py-us* and 1,00,000 *Talaings* to place *Let-ya-meng-nan* upon the throne. This army marched in the year 464 ; after one repulse the usurper *Meng-Pa-di* was slain, and *Let-ya-meng-nan* restored to the throne of his ancestors in the month *Nat-dau* 465.*

* A Burmese inscription on a stone discovered at Budha Gaya, a facsimile and translation of which by Colonel Burney, are given in the 20th Vol. of the Asiatic Researches, serves to confirm the account given in this history, of the restoration of *Let-ya-meng-nan*, or as he is called in the stone inscription, *Pyu-ta-thin-meng*, i.e. "Lord of a hundred thousand *Pyus*." The dates of the inscription which were considered uncertain, are no doubt meant to be 467 and 468, approximating as these do to the date assigned in the Arakan history for the restoration of *Let-ya-meng-nan*. It is evident from the tenor both of the history and the inscription, that the Arakan prince was regarded as a dependent of the *Pug-gan* king, to whom he had from his birth

The allies of the restored king attempted to carry away the *Maha-mu-ni* image, whereby it was much injured.* The royal capital was established first at *Loung-kyet*, but that site proving unhealthy, the city of *Ma-rin* was built in the year 468. This king reigned six years.

Four kings followed in quick succession, after whom *Gau-la-ya* ascended the throne in the year 495. He is described as a prince of great power, to whom the kings of *Bengal*, *Pegu*, *Pug-gan* and *Siam* did homage. But his chief claim to distinction rests on his having built the temple of *Ma-ha-ti*, a few miles south of the present town of *Arakan*, the idol in which was, in sanctity, inferior only to that of *Ma-ha-mu-ni*. This temple and image were destroyed during the late war, the height on which the temple stood, being occupied as a position by the Burmese forces. This king died, after a reign of twenty years, in 515.

He was succeeded by his son *Da-tha-Ra-dza*, who upheld his father's fame, and repaired *Ma-ha-mu-ni* temple, which since its partial destruction by the *Py-u* army in *Let-ya-meng-nan's* time, had remained neglected; the idol which had been mutilated was also restored, the tributary kings being employed on the work. This king died after a reign of twelve years in 527.

He was succeeded by his son *A-nan-thi-ri*. This prince grievously oppressed his people, and neglecting the affairs of government, passed his days in riot and debauchery. He lost the extensive empire possessed by his father and grandfather, neglected religious duties, and extorted large sums of money from the people, till the whole country, says the historian, cursing him in their hearts, a general rising occurred; he was deposed and killed, and his younger brother *Meng-phun-tsa*, reigned in his stead in the year 529.

birth been a suppliant for aid; in return for the assistance granted him for the recovery of his grandfather's throne, he was to aid in rebuilding the temple at Budha Gaya, in the name of the *Pug-gan* sovereign. The archetype of the inscription has evidently been written by an Arakanese, or the stone was engraved by an Arakanese workman, from a peculiarity in the spelling of certain words, still prevailing among the Arakanese.

* The possession of this idol with which the fortunes of Arakan were supposed to be inseparably united, appears to have been long an object with the Burmese monarchs. It was not forgotten when they conquered the country in A.D. 1781. They then succeeded in carrying it to Ava, where it still remains.

This prince established his capital at *Khyit*, on the river *Le-myo*. A Shan army attempting to invade the kingdom, was defeated in the *Yu-ma* mountains; a number were taken prisoners, and settled in two villages on the tract of country in Arakan Proper, now called *Toung-phek*. This king died after a prosperous reign of seven years.

In the reign of his grandson *Gana-yu-ban*, a noble named *Tsa-leng-kabo*, usurped the throne, but proving oppressive, was murdered in the first year of his usurpation.

Mi-dzu-theng, the younger brother of *Gan-na-yu-bau*, was now raised to the throne; he removed the capital to *Pingtsa*, close to the present town of Arakan. The oldest Arakanese coins extant, having the emblems of royalty engraved upon them, but without any date or inscription, are traditionally said to have been struck during this reign. This prince was surnamed *Taing-khyit*, or "country beloved." With characteristic extravagance, he is said in the history, to have reigned over the present Burmese dominions, and a great part of India, as far as the river *Na-rin-dza-na*, and to the borders of *Nipal*.

The succeeding ten kings pass like shadows, without any thing worthy of notice except their short reigns. The five last of them reigned only for one year each, and by their oppression and neglect of religious duties, the people were dissatisfied, while sickness and famine desolated the country. The *Nats*, or spirits of the seasons, withheld their aid; the earth no longer yielded her fruit, and general misery prevailed. The last of these wicked kings was deposed, and his son *Let-ya-gyi*, ascended the throne in the year 572. He by his mild government, restored the prosperity of the country.

In the year 599, *A-lau-ma-phyu* succeeded to the throne, and removed the capital to *Lyung-kyet* in 601. This king made war upon the *Pug-gan* sovereign, and received tribute from the king of Bengal. He died after a reign of six years.

His son *Ra-dza-thu-gyi* succeeded. In this reign the Talaings invaded the southern portion of the kingdom, but were repulsed by the Arakanese general *A-nan-thu-gyi*; nothing worthy of notice occurs until the reign of *Nan-kya-gyi*, who ascended the throne in the year 630. This king oppressed the people with heavy taxes, and levied contributions of goods which he stored up in his palace. By various

acts of tyranny, he incurred the hatred of many influential men, and even the priests, whose religion forbids them to notice worldly affairs, are represented as inimical to him. A fanciful tale is related of the means taken to procure his death. A certain noble, who was the *Tsi-tha-beng*, or commander of the body guard, whom he had deeply offended, conspired with two religious students, who were said to possess the power of metamorphosis, an art which the king had formerly learnt from them. The two brothers assuming the form of wild buffaloes approached the capital; information thereof being brought to the king, he, unaware of the deception, ordered a hunting party to be formed, and went out to see the sport. As soon as he saw the buffaloes, he knew them to be the magicians transformed, and endeavoured to escape by flight as a parrot. The brothers instantly assuming the form of hawks, followed in pursuit. The king finding he could not escape, dropped his disguise, and fled towards a *Kyoung*, or monastery, where he implored the protection of the head priest. The priest reproaching him with his oppressive conduct repulsed him, and he fled to an adjoining temple, where he concealed himself in the hollow part, containing an image of *Gau-ta-ma*, and shut the gate. The brothers followed him, and threatening to apply fire to the gate, he came forth, and was slain by them on the spot, in the fourth year of his reign.

He was succeeded by his son *Meng-bhi-lu*, who married the daughter of the *Tsi-tha-beng*, the conspirator against the former sovereign. This prince is described as being if possible more hateful than his father; being jealous of the supposed high destinies of his infant son *Meng-di*, he ordered him to be cast into the river, but the child was miraculously preserved, and rescued by some fishermen. He was then sent to a remote part of the kingdom. These and other similar acts inflaming the minds of the people against him, he was slain in a conspiracy headed by the *Tsi-tha-beng*, after a reign of four years.

Tsi-tha-beng, the king-maker now usurped the throne, but was himself killed in the third year of his reign.

The son of *Meng-Bhi-bi*, named *Meng-di*, was then raised to the throne, when he was only seven years of age. This king gave general satisfaction, and enjoyed a long and prosperous reign. In the year 656, the Shans invaded the kingdom, but were repulsed. The king of

Thu-ra-tan,* or Bengal, named *Nga-pu-kheng*, courted his alliance, and sent presents of elephants and horses. After this, his dominions being again attacked in various quarters by the *Shans*, the *Burmese*, the *Talaings*, and the *Thek* tribe on the north, the king went to the *Ma-ha-mu-ni* temple, and depositing his rosary before the idol, vowed to rid his country of its enemies. In pursuance of his vow, he marched in person, in the month *Nat-dau* of the year 674, to repel the *Talaings*, who had possessed themselves of the country south of the town of *Than-dwai*; his uncle *Udz-dza-na-gyi*, was sent with an army to attack *Pug-gan*; *Tsa-leng-ga-thu*, his brother-in-law, advanced into *Pegu*; and the general *Ra-dza-theng-kyan*, was sent against the *Thek* tribe.

The city of *Pug-gan* was taken, the *Talaings* were overawed, and the expedition against the *Thek* tribe, after being once repulsed was eventually crowned with success. After this the general *Ra-dza-theng-kyan* subdued the country along the sea coast, as far as the *Brahmaputra* river.

In the year 689, the *Pug-gan* sovereign made an attack upon the island of *Ran-byi*, and carried away a number of the inhabitants who were planted on the *Munipur* frontier. After this, the *Than-dwai* viceroy having gained possession of a relic of *Gautama*, brought from *Ceylon*, by virtue of which he expected to attain sovereignty, rose in rebellion. A pagoda was built over the relic, which still exists. The *Than-dwai* viceroy was finally reduced to obedience. Soon after this, *Meng-di* died after a reign of 106 years, aged 313.

Nothing worthy of notice occurred, until the reign of *Thin-sti*, who succeeded to the throne in the year 752. In the year 756, he marched to attack the *Pug-gan* empire, the capital of which was established at *Eng-wa* or *Ava*. During his absence, the governor of *Than-dwai*, styled the *Tsi-tha-beng*, revolted, and seizing the boats which had transported the king's army along the sea coast, and were now left on the shore for his return, he made the best of his way to *Loung-kyet* the capital, where he set up the absent king's infant son *Ra-dza-thu*.

* This may be meant for *Sunargong*, the capital of the eastern district of Bengal when it first revolted from the Delhi Empire A. D. 1279. The event recorded in the text probably occurred about the year A. D. 1295. I cannot guess what Mahomedan name *Nga-pu-kheng* represents.

The king returned without delay to the capital, but his army deserting him, he was slain and his son proclaimed.

The *Tsi-tha-beng* not long after sent the young king to the southern extremity of the kingdom, and governed in his name; but becoming unpopular, he was after two years deposed, and killed by a noble named *Myin-tsaing-kyi*. The latter in his turn became disliked, and was obliged to fly to the Burmese dominions. The lawful king *Ra-dza-thu*, was now restored in the year 759.

He was succeeded by his younger brother *Thing-ga-thu*. This prince after a reign of three years, was murdered by the chief priest of the country, in a monastery, with the connivance of his nephew *Meng-tsau-mwun*, who then succeeded to the throne in the year 766.

Shortly after his accession, he committed an act of tyranny which raised a rebellion against him, and this event caused a material change in the relations of the kingdom. It was the occasion of the first loss of its independence since the establishment of the second dynasty of *Dhi-ngya-wa-ti* under *Kan-Ra-dza-gyi*, more than two thousand years before. It was followed by internal dissensions throughout a long and unhappy period, till exhausted by the struggles of contending factions, the ancient kingdom of Arakan fell before the newly risen fortunes of the successors of *A-loung-phra*, in the Burmese empire.

Meng-tsau-mwun forcibly gained possession of a lady named *Tsau-bo-ngyo*, the sister of the chief called *A-nan-thiu*. The brother determined on revenge, went to the court of Ava, and applied for assistance to dethrone the Arakanese king. The Burman monarch *Meng-tshwai*, approving of the design, sent an army of 30,000 men under his son, who attacked and gained possession of the city *Loung-kyet*, on Sunday the 5th day of *Nat-dau*, in the year 768. *Meng-tsau-mwun* fled to Bengal, the governor of Chittagong took from him his queen, *Tsau-mwe-sheng*, on which the fugitive king went to *Thu-raa-tan*, where the king received him with distinction.

The Burmese now gained undisputed possession of the country, and the king's son returning home, was appointed governor. A half brother of *Meng-tsau-mwun's* called in the Talaings, who advanced with an army of 50,000 men, and took the Burman governor prisoner. The Burmans, however, returned in force the following year (770,) and reconquered the country. For several years, the Talaings and Burmans

struggled for the possession of Arakan, and the latter were finally expelled in the year 788, by the united efforts of the Arakanese and Talaings.

During this period, the dethroned king was residing at the court of the king of *Thu-ra-tan*, who being engaged in wars, could not afford him any assistance; while there, the Delhi king came to attack *Thu-ra-tan** with a large army, consisting of elephants, horses, chariots, and foot soldiers, also "dogs as large as bullocks,"† trained to war. By the advice of *Meng-tsau-mwun*, the dogs were disabled by means of iron hooks baited with raw flesh, seizing which, they were caught by the mouth and easily overpowered. The elephants and horses fell into pits dug for them, and covered over with straw and earth, at the bottom of which were iron spikes; thus the *Thu-ra-tan* king obtained a complete victory. The Arakanese exiled king taught the king's subjects the art of entrapping a herd of wild elephants by driving them into a space enclosed by a stockade and ditch; he also instructed them in the art of training elephants.

Out of gratitude for these services, the king determined to assist the exiled prince in the recovery of his kingdom. He appointed a general called in the Arakanese annals *U-lu-kheng*, (Wali Khan,) to command the army of restoration. This person, however, betrayed his trust, and joining with a *Ra-khaing* chief, named *Tse-u-ka*, they established a government, and imprisoned *Meng-tsau-mwun*. He escaped and fled to Bengal.

The king of *Thu-ra-tan* now appointed two nobles, named *Dan-ba-tsu* and *Ba-ba-tsu*, to carry out his intentions, together with a large army under the command of *Tshat-ya-khat*. They arrived with orders to place *Meng-tsau-mwun* on the throne, and bring back the head and skin of *U-lu-kheng*. The expedition was successful. *U-lu-kheng* suffered the fate his crime deserved, and the historian records in glow-

* As the Arakanese make sad confusion of all cities and countries in India, this may mean any king between Bengal and Dehli, probably the king of *Juanpur*. The fugitive must have reached *Thu-ra-tan* about the year A. D. 1407, when, and for some years after, in consequence of Timur's invasion, the Dehli sovereign was not in a condition to attack Bengal.

† This reminds one of the dogs of Tibet of the size of asses, mentioned by Marco Paolo, Book II, Ch. 37. I have known Burmans speak of a rather large English greyhound as being of the size of a pony, i. e. 12 or 13 hands.

ing terms the joy of the people, "from the inhabitants of the kingly city, to those of the smallest village in the empire," that the descendant of their ancient line of kings was restored to them.

The restored king, however, was forced to submit to the degradation of being tributary to the king of *Thu-ra-tan*, and from this time the coins of the Arakan kings bore on the reverse, their names and titles in the Persian character; this custom was probably first made obligatory upon them as vassals, but they afterwards continued it when they had recovered their independence, and ruled the country as far as the Brahmaputra river.

Meng-tsau-mwun having got rid of his allies, meditated a change of capital, and setting out on a journey to find a suitable spot, was miraculously guided to the site of the present city of Arakan, called *Myouk-u*,* by the figure of a handsome youth beckoning him on, but which constantly retreated as the monarch approached.

While searching for a proper site, numerous predictive signs of its future destiny were manifested;† with the concurrence of the astrologers, the city was founded on Sunday, the first day of the month *Taw-tha-leng*, in the year 792.

When *Meng-tsau-mwun* found his end approaching, as his sons were infants, he appointed his brother *Meng-kha-ri* heir to the throne, and closed his chequered career in the fourth year of his restoration, aged fifty-three years.

Having brought this sketch of Arakan history down to the foundation of that city, which continued to be the residence of the kings for three and a half centuries, until the Burman conquest in A. D. 1784, it is fitting to pause here, and resume the remaining portion of *Nga-mi's* history at some future period.

October, 1843.

* This spot it is supposed, had been shewn by omens and incidents in very remote times, to be destined as the site of a great city. It was temporarily occupied by the *Myu* chief, *Pai-phyu*, who ascended the throne in the year 326. A stone wall round the town, and one round the citadel, still remain. Immense labour has been expended on those works.

† Among the rest, five white *touktais*, (large lizards,) were found in the hollow of a tree. These are said by present interpreters of the omen, to mean the English, five of whose kings, "who shall shine as flame and be workers of truth," are to reign over the country, after which its independence will be restored, or the kingdom be established, subject to the performance of homage to the superior power.

Chronological Table of the Kings of Arakan.

No.	Name of Sovereign.	Date of Accession.		Reign. Yrs. Ms.	Relationship of each succeeding Sovereign.
		B.	C. Ar. era.		
<i>Dhi-ngya-wa-ti Dynasty.</i>					
1.	Ma-ra-yir,	2666	....	62 0	
2.	Ma-ra-dzi, ....	....	....	32 0	Son.
3.	Ma-ra-on-leng, ...	....	....	53 0	Ditto.
4.	Ma-ra-rway-leng, ..	....	....	48 0	Ditto.
5.	Ma-ra-bheng, ....	....	....	55 0	Ditto.
6.	Ma-ra-dzi, ....	....	....	33 0	Ditto.
7.	Ma-ra-keng, ....	....	....	32 0	Ditto.
8.	Nga-tshap-o, ....	....	....	21 0	An Usurper.
9.	Dwa-ra-tsan-dra, ..	....	....	40 0	Son of Má-ra keng.
10.	Tho-la-tsan-dra, ..	....	....	33 0	Son.
11.	Tsan-da-thu-ri-ya-tsan-dra, ..	....	....	37 0	Ditto.
12.	Ka-la-tsan-dra, ....	....	....	40 0	Ditto.
13.	Ti-tsan-dra, ....	....	....	31 6	Ditto.
14.	Ma-dhu-tha-tsan-dra, ....	....	....	20 0	Ditto.
15.	Dze-ya-tsan-dra, ..	....	....	40 0	Ditto.
16.	Mok-kha-tsan-dra, ....	....	....	26 0	Ditto.
17.	Gun-na-tsan-dra, ..	....	....	12 0	Ditto.
Three nobles reigned for seven days, three months, and eight months successively,					
18.	Kan-Ra-dza-gyi, ..	....	....	.. 11	Usnrpers.
		....	....	41 0	Grandson of Gun-na-tsan-dra.
19.	Kan-Ra-dza-ngai, ....	....	....	36 0	Brother.
20.	In-da-thu-ri-ya, ..	....	....	35 0	Son.
21.	A-thu-rin-da-thu-ri-ya, ....	....	....	30 0	Ditto.
22.	Tha-ra-met-ta, ....	....	....	28 0	Ditto.
23.	Thu-ri-ya, ....	....	....	31 0	Ditto.
24.	Meng-thi, ..	....	....	22 0	Ditto.
25.	Meng-ba, ....	....	....	22 0	Ditto.
26.	Tsi-oung, ....	....	....	28 0	Ditto.
27.	Ta-taing-theng, ..	....	....	31 0	Brother.
28.	Kyau-khoung-weng, ....	....	....	31 0	Son.
29.	Thu-ri-ya-nan-da-mit, ....	....	....	21 0	Ditto.
30.	A-thu-rin-da-bha-ya, ....	....	....	31 0	Ditto.
31.	Let-ya-tsi-thu-kyi, ....	....	....	32 0	Ditto.
32.	Thi-ha-ka, ....	....	....	43 0	Ditto.
33.	Meng-bhun-than, ..	....	....	31 0	Ditto.
34.	Tha-ret-huwe, ....	....	....	49 0	Ditto.
35.	Dze-ya-nan-da-thu, ....	....	....	51 0	Ditto.
36.	Tek-ka-thu, ....	....	....	46 0	Ditto.
37.	Lek-kha-na, ....	....	....	37 0	Ditto.
38.	Gun-na-rit, ....	....	....	48 0	Ditto.
39.	Thi-wa-rit, ....	....	....	41 0	Ditto.
40.	Meng-hla-huwe, ..	....	....	31 0	Ditto.
41.	Ma rin-da, ..	....	....	62 0	Ditto.
42.	Thi-dhat-kum-ma-ra, ....	....	....	22 0	Ditto.
43.	Meng-hla-kyi, ....	....	....	47 0	Ditto.
44.	Meng-hla-ngay, ...	....	....	24 0	Brother.
45.	Nga-tsa-rit, ....	....	....	38 0	Son.
46.	Myet-hna-wun, ..	....	....	31 0	Ditto.
47.	Let-khut-kyi, ....	....	....	27 0	Ditto.
48.	Thi-ri-kam-na-thun-da, ....	....	....	31 0	Ditto.
49.	Nan-da-ko-ta-bha-ya, ....	....	....	27 0	Ditto.
50.	Meng-nan-hpyu, ..	....	....	20 0	Ditto.
51.	Meng-ma-nu, ....	....	....	28 0	Ditto.

No.	Name of Sovereign.	Date of Accession.		Reign. Yrs. Ms.	Relationship of each succeeding Sovereign.
		B. C.	Ar. era.		
52.	Meng-khoung-ngay, ....	....	....	19 0	Son.
53.	Louk-khoung-ra-dza, ....	....	....	40 0	Ditto.
54.	Meng-ngay-pyau-hla-tsi, ..	....	....	6 0	Ditto.
	Three nobles usurp the throne, ....	....	....	6 8	
<i>Dhi-ngya-wa-ti second Dynasty.</i>					
1.	Kan-Ra-dza-gyi, ..	825	....	37 0	
2.	Thi-la-Ra-dza, ....	....	....	48 0	Son.
3.	Wa-tsa-thu-ra, ....	....	....	31 0	Ditto.
4.	Nan-da-wi-thu-ra, ....	....	....	40 0	Ditto.
5.	Pun-na-thu-ri-ya, ....	....	....	32 0	Ditto.
6.	Thu-ran-da, ....	....	....	23 0	Ditto.
7.	Tsan-di-ma, ....	....	....	37 0	Ditto.
8.	Thi-ri-tsan-da, ....	....	....	40 0	Ditto.
9.	Thi-ha-ran,	537	....	46 0	Brother.
10.	Thi-ha-nu, ....	....	....	20	Son.
11.	Pa-ya-ka, ....	....	....	31 0	Ditto.
12.	Ne-la-gun, ....	....	....	41 0	Ditto.
13.	Roha-ha-gun, ....	....	....	31 0	Ditto.
14.	Thi-ri-gun, ....	....	....	24 0	Ditto.
15.	Tha-ma-dza, ....	....	....	35 0	Nephew.
16.	Kum-ma-ra, ....	....	....	20 0	Son.
17.	Thek-hteng-hpyu, ....	....	....	40 0	Ditto.
18.	Tha-bheng-u, ....	....	....	42 0	Ditto.
19.	Te-dza-wun, ....	....	....	36 0	Ditto.
20.	Mun-dza-ya-ba, ..	....	....	34 0	Ditto.
21.	Kum-ma-ra-wi-thud-dhi, ..	....	....	87 0	Ditto.
22.	Wa-thu-mun-da-la, ....	....	....	34 0	Ditto.
23.	Thu-rin-da, ....	....	....	31 0	Ditto.
		A. D.			
24.	Ra-la-ma-yu,	15	....	22 0	Brother.
25.	Na-la-ma-yu,	37	....	31 0	Son.
26.	Wa-dha-gun,	68	....	22 0	Ditto.
27.	Wi-thu-ra-dza, ..	90	....	21 0	Ditto.
28.	Thi-ri-ra-dza,	111	....	35 0	Ditto.
<i>Dhi-ngya-wa-ti Dynasty of the religion of Gau-ta-ma.</i>					
29.	Tsan-da-thu-ri-ya,	146	690	52 0	Ditto.
30.	Thu-ri-ya-di-ti, ..	198	....	47 0	Ditto.
31.	Thu-ri-ya-pa-ti-pat,	245	....	53 0	Ditto.
32.	Thu-ri-ya-ru-pa, ..	298	....	15 0	Ditto.
33.	Thu-ri-ya-man-da-la,	313	....	62 0	Ditto.
34.	Thu-ri-ya-wan-na,	375	....	44 0	Ditto.
35.	Thu-ri-ya-na-tha, ..	419	....	40 0	Ditto.
36.	Thu-ri-ya-weng-tha,	459	....	9 0	Ditto.
37.	Thu-ri-ya-ban-da,	468	....	6 0	Ditto.
38.	Thu-ri-ya-ka-ly-na	474	....	18 0	Ditto.
39.	Thu-ri-ya-muk-kha,	492	....	21 0	Ditto.
40.	Thu-ri-ya-te-dza, ..	513	....	31 0	Ditto.
41.	Thu-ri-ya-pu-nya,	544	....	8 0	Ditto.
42.	Thu-ri-ya-ku-la, ..	552	....	23 0	Ditto.
43.	Thu-ri-ya-pa-bas ..	575	....	25 0	Ditto.
44.	Thu-ri-ya-tsi-tra, ..	600	....	18 0	Ditto.

No.	Name of Sovereign.	Date of Accession.		Reign. Yrs. Ms.	Relationship of each succeeding Sovereign.
		A. D.	Ar. era.		
45.	Thu-ri-ya-the.tha,	618	....	22 0	Son.
46.	Thu-ri-ya.wi-ma-la,	640	....	8 0	Ditto.
47.	Thu-ri-ya.re.nu, ..	648	....	22 0	Brother.
48.	Thu-ri-ya.geng.tha,	670	....	16 0	Son.
49.	Thu-ri-ya.thek.ya,	686	....	8 0	Paternal Uncle.
50.	Thu-ri-ya.thi-ri, ..	794	....	20 0	Son.
51.	Thu-ri-ya.ke.thi, ..	714	....	9 0	Ditto.
52.	Thu-ri-ya.kut.ta, ..	723	....	23 0	Ditto.
53.	Thu-ri-ya.ke.tu, ..	746	....	42 0	Ditto.
<i>Dynasty of the city We.tha.li.</i>					
1.	Ma.ha.taing.tsan.dra,	788	150	22 0	Ditto.
2.	Thu-ri-ya.taing.tsan.dra, ..	810	172	20 0	Ditto.
3.	Mau.la.taing.tsan.dra,	830	192	19 0	Ditto.
4.	Pau.la.taing.tsan.dra,	849	211	26 0	Ditto.
5.	Ka.la.taing.tsan.dra,	875	237	9 0	Ditto.
6.	Du.la.taing.tsan.dra,	884	246	19 0	Ditto.
7.	Thi-ri.taing.tsan.dra,	903	265	32 0	Ditto.
8.	Thing.gha.tha.taing.tsan dra,	935	297	16 0	Ditto.
9.	Tsu.la.taing.tsan.dra,	951	313	6 0	Ditto.
10.	A.mya.thu,	957	319	7 0	A chief of the Myu tribe.
11.	Pai.phyu,	964	326	30 0	Nephew.
12.	Nga.meng.nga.tum,	994	356	24 0	Son of Tsu.la.taing-tsan- dra.
<i>Dynasty of Ping.tsa City.</i>					
1.	Khet.ta.theng, ..	1018	380	10 0	Grand Nephew to Tsu.la- taing.tsan.dra.
2.	Tsan.da.theng, ..	1028	390	11 0	Brother.
3.	Meng.reng.phyu, ..	1039	401	10 0	Son.
4.	Na.ga.thu-ri-ya, ..	1049	411	3 0	Ditto.
5.	Thu-ri-ya Ra.dza,	1052	414	2 0	Ditto.
6.	Pun.na.ka, ..	1054	416	4 0	Ditto.
7.	Meng.phyu.gyi, ..	1058	420	2 0	Ditto.
8.	Tsi.tha.beng, ..	1060	422	1 0	Usurper.
9.	Meng.nan.thu, ..	1061	423	5 0	Son of Meng.phyu.gyi.
10.	Meng.la.de, ..	1066	428	6 0	Son.
11.	Meng.ku.la, ..	1072	434	3 0	Ditto.
12.	Meng-Bhi.lu, ..	1075	437	3 0	Ditto.
13.	Theng.kha.ya, ..	1078	440	14 0	Usurper.
14.	Meng.than, ..	1092	454	8 0	Son.
15.	Meng.pa.di, ..	1100	462	3 0	Ditto.
<i>Dynasty of the city Pa-rin.</i>					
1.	Let.ya.meng.nau,	1103	465	6 0	Grandson of Meng.Bhi.lu.
2.	Thi.ha.ba,	1109	471	1 0	Son.
3.	Ra.dza.gyi,	1110	472	2 0	Ditto.
4.	Tha.ki.weng.gyi, ..	1112	474	3 0	Ditto.
5.	Tha.ki.weng ngay,	1115	477	18 0	Ditto.
6.	Gau.li.ya,	1133	495	20 0	Ditto.
7.	Da.tha.Ra.dza,	1153	515	12 0	Ditto.
8.	A.nan.thi-ri, ..	1165	527	2 0	Ditto.
<i>Dynasty of the city Khyit.</i>					
1.	Meng.Phun.tsa, ..	1167	529	7 0	Brother.
2.	Pin.tsa.ka.wa, ..	1174	536	2 0	Son.
3.	Gan.na.yu.bau, ..	1176	538	3 0	Ditto.
4.	Tsa.leng ka.bo, ..	1179	541	1 0	Usurper.

No.	Name of Sovereign.	Date of Succession.		Reign. Yrs. M.	Relationship of each succeeding Sovereign.
		A.	D. Ar. era.		
Second Dynasty of the city Ping tsa.					
1.	Mi.dzu.theng,	1180	543	11 0	Son of Pin.tsa.ka.wa.
2.	Nga.ran.man,	1191	553	2 0	Son.
3.	Nga.pug.gan,	1193	555	2 0	Ditto.
4.	Nga.ra.khoing,	1195	557	3 0	Ditto.
5.	Nga.kyun,	1198	560	3 0	Ditto.
6.	Nga.tshu,	1201	565	4 0	Ditto.
7.	Nga.tswai.theng,	1205	567	1 0	Ditto.
8.	Meng.khoung.gyi,	1206	568	1 0	Ditto.
9.	Meng.khoung.ngay,	1207	569	1 0	Ditto.
10.	Kan.bha.loung.gyi,	1208	570	1 0	Ditto.
11.	Kan.bha.loung.ngay,	1209	571	1 0	Ditto.
12.	Let.ya.gyi,	1210	572	8 0	Ditto.
13.	Let.ya.ngay,	1218	580	11 0	Ditto.
14.	Tha.na.beng,	1229	591	3 0	Ditto.
15.	Nga.na.thin,	1232	594	2 0	Ditto.
16.	Nga.na.lum,	1234	596	3 0	Ditto.
Dynasty of the city Loung-kyet.					
1.	H.lan.ma.phyu,	1237	599	6 0	Ditto.
2.	Ra.dza.thu.gyi,	1243	605	3 0	Ditto.
3.	Tsau.lu,	1246	608	5 0	Ditto.
4.	Uts.tsa.na.gyi,	1251	613	9 0	Ditto.
5.	Tsau.mwun.gyi,	1260	622	8 0	Ditto.
6.	Nan.kya.gyi,	1268	630	4 0	Ditto.
7.	Meng.Bhi.lu,	1272	634	4 0	Ditto.
8.	Tsi.tha.beng,	1276	638	3 0	Usurper.
9.	Meng.di,	1279	641	106 0	Son of Meng.bhi.lu.
10.	Uts.tsa.na.ngay,	1385	747	2 0	Son.
11.	Thi.wa.rit,	1387	749	3 0	Younger brother.
12.	Thin.tse,	1390	752	4 0	Ditto.
13.	Ra.dza.thu,	1394	756	1 0	Son.
14.	Tsi.tha.beng,	1395	757	2 0	Usurper.
15.	Myin.tsoing.kyi,	1397	759	0 5	Ditto.
16.	Ra.dza.thu, (restored,)	1397	759	4 0	
17.	Thing.ga.thu,	1401	763	3 0	Brother.
Dynasty of the city Myouk.w.					
1.	Meng.tsau.mwun,	1404	766	2 0	Son of Ra.dza.thu.
	Interregnum, .. ....	....	..	24 0	
	Meng.tsau.mwun restored, .. ....	....	792	4 0	
2.	Men.kha.ri,	1434	796	25 0	Brother.
3.	Ba.tsau.phyu,	1459	821	23 0	Son.
4.	Dau.lya,	1482	844	10 0	Ditto.
5.	Ba.tsau.ngyo,	1492	854	2 0	Uncle a son of Meng.khari.
6.	Ran.oung,	1494	856	.. 6	Son of Dau.lya.
7.	Tsa.leng.ga.thu,	1494	856	7 0	Uncle by the mother's side.
8.	Meng.ra.dza,	1501	863	22 0	Son.
9.	Ga.dza.ba.di,	1523	885	2 0	Ditto.
10.	Meng.tsau.o,	1525	887	.. 6	Brother to Tsa.leng.ga.thu.
11.	Tha.tsa.ta,	1525	887	6 0	Son of Dau.lya.
12.	Meng.beng,	1531	893	22 0	Son of Men.Ra.dza.
13.	Dik.kha,	1553	915	2 6	Son.

No.	Name of Sovereign.	Date of Succession.		Reign. Yrs. M.	Relationship of each succeeding Sovereign.
		A. D.	Ar. era.		
14.	Tsau.lha,	1555	917	9 0	Son.
15.	Meng.Tsek.ya, ..	1564	926	7 0	Brother.
16.	Meng.Tha.loung,	1571	933	22 0	Son of Meng.beng.
17.	Meng.Ra.dza.gyi,	1593	955	19 0	Son.
18.	Meng.Kha.moung,	1612	974	10 0	Ditto.
19.	Thi ri thu.dham-ma,	1622	984	16 0	Ditto.
20.	Meng.Tsa.ni, ..	1638	1000	.. ..	Son reigned only 28 days.
21.	Na.ra.ha.di.gyi, ..	1638	1000	7 0	Great grandson of No. 11 Tha.tsa.ta.
22.	Tha.do,	1645	1007	7 0	Brother's son.
23.	Tsan.da.thu.dham-ma,	1652	1014	32 0	Son.
24.	Nau ra.hta.dzau, ..	1684	1046	1 0	Ditto.
25.	Thi.ri.thu.ri.ya, ..	1685	1047	7 0	Brother.
26.	Wa.ra.dham.ma.ra.dza,	1692	1054	2 0	Ditto.
27.	Mu.ni-thu,	1694	1056	2 0	Ditto.
28.	Tsan.da.thu.ri.ya,	1696	1058	.. ..	Son reigned eleven days.
29.	Ma.yup.pi.ya, ..	1696	1058	1 0	Usurper.
30.	Ka.la.man.dat, ..	1697	1059	1 0	Ditto.
31.	Na.ra.dhi.hadi, ..	1698	1060	2 0	A supposed son of No. 27. Tsan.da.thu.ri.ya.
32.	Tsan.da.wi.ma.la,	1700	1062	6 0	Son of Meng.rai.kyan- tswa who was a son of No. 22 Tha.do.
33.	Thu.ri.ya, ..	1706	1068	4 0	A son Rai.hhau.thi.ha, who was a son of No. 23 Tsan.da.thu.dham-ma.
34.	Tsan.da.wi.dza.ya,	1710	1072	21 0	Usurper.
35.	Thu.ri.ya,	1731	1093	3 0	Son.in.law.
36.	Na.ra.dhi.ba.di, ..	1734	1096	1 0	Son.
37.	Na.ra.pa.wa.ra, ..	1735	1097	2 0	Usurper.
38.	Tsan.da.wi.dza.la,	1737	1099	8 0	Cousin.
39.	Ka.tya, .. ..	....	....	.. ..	A foreigner reigned for three days.
40.	Mad.da.rit,	1737	1099	5 0	Brother to No. 38.
41.	Na.ra.a.pa.ya, ..	1742	1104	19 0	Uncle.
42.	Thi.ri.thu,	1761	1123	.. 3	Son.
43.	Pa.ra.ma.Ra.dza,	1761	1123	3 0	Brother.
44.	Ma.ha.Ra.dza, ..	1764	1126	9 4	Brother.in.law.
45.	Thu.ma.na,	1773	1135	4 0	Ditto.
46.	Tsan.da.wi.ma.la,	1777	1139	.. ..	Usurper reigned forty days.
47.	Tha.di.tha.dhamma yit,	1777	1139	5 0	A chief from Ram.byi.
48.	Tha.ma.da,	1782	1144	2 0	A chief, in whose reign the Burmese conquered the country.

Note.—In the above list of Arakanese Sovereigns several discrepancies will be observed, if it be compared with Mr. Paton's table, published in the 16th Vol. of the Asiatic Researches, p. 380. Some of these discrepancies however are only apparent, arising 1st from a difference of the mode of spelling. Mr. Paton has adopted an orthography consistent with the pronunciation of the people of Arakan proper; where, though the letters of the alphabet are precisely the same as those current among the whole Burman race, yet the powers of the letters, and the sounds of the inherent vowels are sometimes different. I have spelt, according to the Burmese pronuncia-

tion. 2d Discrepancies arise from evident misprints in Mr. Paton's list. 3d Different names are applied to the same individuals among the later Arakanese kings.

After the time of *Meng Tsau-mwun* when they became for a time tributary to Bengal, and later still when they ruled over the present Chittagong district, they assumed foreign names, and their Bengal subjects distinguished them by Indian names and titles, which are now frequently applied to them, though the same Indian names are not always applied to the same individual kings, even by the best informed among the Arakanese. Hence arises confusion, the dates in Mr. Paton's list refer to the death or deposition of the sovereigns opposite to whose names they are placed, the dates in the foregoing list refer to the accession of each sovereign. As an illustration of these remarks, I here subjoin a comparison of a few of the names from the two tables.

<i>Paton's list.</i>	<i>Same as.</i>	<i>Remarks.</i>
74. Ju.mu.wai,	Meng.tsau.mwun, ..	No. 1, of the dynasty of Myouk-au. In this name <i>Meng</i> is an honorary prefix. <i>Tsau-mwun</i> if written according to the pronunciation of Arakan proper would be <i>Cho-ma-in</i> or <i>Cho-mwa-in</i> , for which Jumuwai is evidently intended.
75. Mong Bhung Raja. ..	.. ..	This is the name of the king of Ava who deposed <i>Tsau.mwun</i> ; and the period of whose deposition I have marked as an interregnum.
76. Ali khang, ...	Meng.kha.ri, ..	<i>Ali kheng</i> , is the foreign name given to this king, <i>khang</i> is the Arakanese pronunciation of <i>kheng</i> .
77. Kala shama,	Ba.tsau.phya, ..	<i>Kalamasha</i> is the foreign name of this king.
	Dau.lya, ..	No. 4, of the above list, is omitted in Mr. P's. table.
78. Jaru, ..	Ba.tsau.ngyo, ..	I cannot satisfactorily account for the difference in these names.
79. Manikra Bong,	Ran.oung, ..	These names refer to the same individual, <i>Manik</i> in Mr. P's. list is a misprint for <i>Meng</i> the honorary title, <i>ra</i> is for <i>Ran</i> ; <i>Bong</i> is an error in copying for <i>oung</i> , as the Burmese letters are easily mistaken. There is no use pursuing this comparison further.

Bhāscara Achārya Siddhānta Shirōmāni sic dicti operis pars tertia, Gunitadhiam, sive astronomiam continens, Latine vertit notasque adjecit E. ROER.

CAPUT I.—RATIONES TEMPORIS COMPUTANDI.

1. Unus ille Sol, ob permagnum in homines amorem radiis suis res, caligine obrutas, nec non summum verum (Bramham) devotorum, perpetuā veri contemplatione in mente purificatorum, manifestans, per mundum imperat.

2. Eodem modo ob permagnum in pueros amorem in disciplinā, per me confectā, definitiones verborum obscurorum ejus (Solis) favore manifestabo, ita ut ūs, memoriā in vero adipiscendo perpetuo exercitā, veri sensus perceptio obtingat.

3. Sphaerae ignarus scientiā, demonstratione stabilitā, non fruitur; quam ob rem omnes notiones difficiles, ad sphaeram pertinentes, primo definiendae sunt.

4. Unus ille Sol, diis venerandus, loti socius, qui caliginem destruens omnia humilium crimina funditus abluit, quōque ad mundum servandum orto, sacrificia incipiuntur, cœlicolaeque, Indrā praecedente, in cœlo ludunt, verbum nostrum, bene conceptum, cito manifestet.

5. In astronomorum circulo doctus Jishnuis filius veluti frontis gemma splendet; splendent facundi Barahas, Mihiras alique, qui praeclaras propositiones in ipsorum scriptis astronomicis protulerunt.

6. Doctus Bhascaras, magistri pedes, loto similes, veneratione adorans, indeque intellectus particulam hauriens, eo consilio, ut illustribus astronomis gratus sit, scripit hoc Siddhantasirōmani, quod, sapientium mentem delectaturum, elegantibus metris praeditum, suavis dictis abundat, purificatum et haud difficile intellectu est.

7. Quanquam per priores (astronomos) opera, ingeniosorum dictorum plena, composita sunt, tamen mihi, eorum dictis explanationes uberiores prodituro, incipiendum erit: his (explan. uber.) passim pro opportunitate exhibitis, astronomi benevolenti totum meum opus perlegant oportet.

8. Boni æque ac pravi viri, illi, materias a me prolatas intelligentes, hi non intelligendo me irridentes, gratificationem inibunt.

9. In hāc astronomicarum disciplinarum principe parte Siddhantae nomine ea a sapientibus ornata est, quae metiendi temporis discrimina, a Truti, sic dictā, usque ad mundi conflagrationem elapsi, gradatimque coelestium corporum motus et duplicem calculum, dein quaestiones et responsiones ac explanationem positionis terrae, Jovis, planetarum, instrumenta etc. definit.

10. Is etiam, qui novit versuum collectiones, nativitatis calculos docentium, minimam sane sublimioris astronomiae partem, nullo modo quaestionibus, in argumentationibus astronomicis difficilioribus, recta responsa reddere valet; quicumque Siddhantam, inumeris conclusionibus progredientem, non intelligit, regi picto, seu tigri, e ligno bene fabricatae, similis est.

11. Ut regius exercitus, elephantum mugitu sive equis etc. privatus, ut hortus Chuta arbore (Mango) orbatus, ut lacus, aqua vacuus, ut femina, novo marito procul perigrinante, non splendet, ita sapientes astronomiae institutiones, Siddhantae orbatae, aestimarunt.

12. Omnes Vedae sacrificiorum caeremoniarum gratia institutae sunt; hae autem tempori inserviunt, ideoque astronomiae disciplina, quippe quae tempus definiat, Vedae pars dicenda est.

13. Literarum scientia, Vedae os, astronomia oculus, Niructa (explanatio obscurorum Vedarum terminorum) aures, Calpa (qua ritus religiosi describuntur) manus, Siesha (qua vocalium pronuntiatio explanatur) Vedae nares, Chanda (ars metrica) pedes a prioribus sapientibus dicta sunt.

14. Astronomia sane veluti Vedae oculus recordanda est, ideoque ei princeps inter Angas (partes) locus assignatur; quid enim homo, ceteris sensibus instructus, at oculi parte orbatus, efficere potest.

15. Quapropter summum illud verum, purum et secretum, Brahmanis (bis natis) discendum est. Quicumque astronomiam bene noscit, is omnino virtutis, divitiarum et desideriorum fructus, necnon gloriam nanciscetur.

16. Bramha creator quum creavisset hanc sphaeram coelestem una cum planetis, in Zodiaci initio* collocatis, quo perpetuo revolvantur, duas stellas polares immobiles fixit.

* Zodiaci initium est in Asvinis.

17. Dein sphærâ cœlesti una cum planetis occidentem versus celeriori motu progrediente, planetæ tardiori motu suis orbitis alterioribus et inferioribus orientem versus moventur.*

18. Super Lancæ urbem Sole ipsius die orto, uno temporis momento origo mensis Chaitrae, primi diei novæ Lunæ, dierum (solarium) mensium, annorum, Yugarum, etc. fuit.†

19. Nictationis oculi trigesima pars Tatpara, ejus (Tatp.) centesima Truti dicta est; duodeviginti nictationes Cashta, 30 Cashtae Cala ab astronomis dicuntur.

20. 30 Calae sunt hora (Ghatika) siderea, 30 horae sidereae dies; decem longae literae Ashu (expiratio et inspiratio,) sexaginta Ashues Pala, 60 Palae Ghatika sunt.

21. 60 Ghaticae dies, 30 dies mensis, 12 mensis annus; eodem modo Zodiacus in aequales partes, viz. in Rashi, Ansas, Calas, etc. divisus est.‡

22. Solis Zodiaci descriptio annus dicitur, idemque deorum et Asurarum dies et nox. A conjunctione Solis et Lunae usque ad alteram conjunctionem mensis lunaris, idemque dies atque nox majorum nostrorum est.

23. Intervallum inter duos Solis ortus dies civilis unaque orbis terrarum dies, Zodiaci revolutio dies sidereus est.

24. Annis solaribus 432000 gradatim per 4. 3. 2. 1. multiplicatis, Yuga quatuor pedes invenies §

* Commentator, quo, nos, ordine inferiores ac superiores planetas enumerans (scilicet Luna, Mercurius, Venus, Sol, Mars, Jupiter, Saturnus,) his omnibus altiore deo-que eas comprehendentem sphæram esse cœlestim, quam Latini universalem dixerunt, autumnat. Hæc vero sphæra vento, Prabaha vocato, atque occidentem versus flante, circumagitur.

† In commentario de temporis origine uberior sermo est; asseritur, temporis limites esse in infinito Brahma, in quo, quia Sol ceteraque corpora non sint, tempus definiri non posse, hoc destructio dicta, seu non æterna destructio.

‡ Annus, = 12 Menses.	Nimesha, = 30 Tatparæ.
Mensis, = 30 Dies.	Tatparah, = 100 Truti.
Dies, = 60 Ghaticae.	Chakra (circulus,) = 12 Rashi.
Ghatika, = 60 Calae.	Rashi, = 30 Anshæ.
Cala, = 60 Cashtae.	Ansha, = 60 Calae.
Cashta, = 18 Nimesæ.	Cala, = 60 Bicalae.

$$§ \text{ Crita Yuga} = 1728000. \quad \text{Crita Yuga} \text{ Crepuscula} = \frac{1728000}{12} \times 2 = 292000$$

$$\text{Treta} \dots = 1296000. \quad \text{Treta} \dots = \frac{1296000}{12} \times 2 = 216000$$

$$\text{Dwapara} \dots = 864000. \quad \text{Dwapara} \dots = \frac{864000}{12} \times 2 = 144000$$

$$\text{Cali} \dots = \frac{432000}{12} \times 2 = 72000$$

$$\text{Maha Yuga} \dots = 4320000.$$

25. Si Yugæ pedibus ipsarum duodecimae partes initio et fine addantur, Yuga (4320000 anni) reperitur.

26. Manuis aetas 71 Yugas amplectitur, 14 Manuis aetatibus Bramhae dies, eodemque tempore ejus nox metitur.

27. Manuum crepuscula in initio, medio et fine eadem sunt ac anni Crita Yugae;* millia Yugarum una cum illis (annis Critae) Bramhae dies est, qui Calpa dicitur, ideoque (Bramhae) dies atque nox duae Calpae sunt.

28. Qui centum annos degere in sacris libris dicitur, ejus Satanandae (Bramhae) aetas a prioribus Mahacalpa nominata est; hoc tempore initio carente, equidem haud scio, quot Bramhae anni elapsi sint.

29. Alii praesentis Bramhae aetatis dimidium, alii dimidium, additis octo annis, elapsum esse, censent;† quod etiamsi demonstrari possit, verumtamen inde fructus non hauritur; planetarum positio secundum tempus praesentis (Bramhae) diei praeterlapsum determinanda est.

30. Bramhae diei initio illae creantur, ejusque fine destruuntur, ideoque planetarum motus, dum praesentes sunt, computari possunt; viris autem magnanimis, qui earum motus, inmo dum non adsunt, computari posse prae se ferunt, salutationem meam.

31. Six Manues, 27 Yugae et Shacae rege mortuo Cali Yugae 3179

* Manuis aetas = $4320000 \times 71 + 1728000 = 308448000$

† 2. Calpae = $308448000 \times 14 + 1728000 = 4320000000$, viz.

$$\text{Cali Yuga, ..} = \frac{4320000}{10} \times 1 = 432000$$

$$\text{Dwapara, ..} = \frac{4320000}{10} \times 2 = 864000$$

$$\text{Treta, ..} = \frac{4320000}{10} \times 3 = 1296000$$

$$\text{Satya, ..} = \frac{4320000}{10} \times 4 = 1728000$$

$$\text{Multiplicetur per 71,} = 4320000$$

$$71 \text{ Yugae,} = 306720000$$

$$\text{Sandhi=Satya,} = 1728000$$

$$\text{Manuis aetas,} = 308448000$$

$$\text{Multiplicetur per 14,} = 4318272000$$

$$\text{Sandhi,.. ..} = 1728000$$

$$\text{Calpa,} = 4320000000$$

anni, ideoque una cum Shacae regis annis Bramhae diei praesentis 1972947179 anni praeterlapsi sunt.*

32. Primus Manu Svayambhuba erat; deinde Suárochisa, Uttamaja, Tamarasa Manues fuerunt; sextus Chaksusae nomine per mundum celebratur; post illos hâc aetate Baibasvata Manuis locum tenet.

33. Sphaericorum scriptores Jovem in mediâ Rashi (in uno Zodiaci signo) per totum annum morari statuunt; homines tempora varie computant, quippe vitae regulandae gratia quatuor methodis utuntur.

34. Anni, periodi aequinoctiales et anni tempora secundum tempus solare, dies lunares secundum tempus lunare, ritus religiosi, omniaque quae ad morbos curandos et dies enumerandos pertinent, secundum tempus civile, horae etc. secundum tempus siderale computantur.

35. Novem igitur temporis metiendi rationes, scil. (Manuum, deorum, Jovis, majorum nostrorum, siderum, Solis, Lunae, computationis civilis et Bramhae) descriptae sunt; planetae vero suâ ipsarum normâ computentur necesse est.

II.—PLANETARUM REVOLUTIONES.

1. Uno Bramhae die labente, Solis, Veneris et Mercurii 43200000000 revolutiones sunt, eundemque revolutionum Apsidum numerum astronomi Saturno, Jovi Martique assignant.

2-4. Lunae 57753300000, Martis 2296828522, Mercurii 1793698984, Jovis 364226455, Veneris 7022389492 revolutiones celeriores, Saturni 146567298 revolutiones esse affirmantur.

5-6. Solis apsidum revolutiones 450, Lunae 488105858, Martis 292, Mercurii 332, Jovis 855, Veneris 653, Saturni 41, Orientem

* 1 Sandhya,	..	..	..	..	..	..	..	1728000
6 Manues,	..	..	..	..	..	..	..	1850688000
27 Maha Yugaë,	..	..	..	..	..	..	..	116640000
Shatya Yuga,	..	..	..	..	..	..	..	1728000
Dwapya Yuga, ..	..	..	..	..	..	..	..	1296000
Treta Yuga,	..	..	..	..	..	..	..	864000
Cali Yugaë,	..	..	..	..	..	..	..	3179

1972947179

versus, revolutiones nodorum Lunae 23231168, Martis 267, Mercurii 521, Jovis 63, Veneris 893, Saturni 594 statuuntur.*

7-9. Bramhae die 158223645000 sphaerae revolutiones occidentem versus, eodemque temporis spatio Solis 155520000000, Lunae 160299900000, et 1577916450000 dies civiles sunt.†

10. Calpae spatio 1593300000 menses lunares intercalares, eodemque tempore 25082550000 dies lunares expungendi a sapientibus statuuntur.‡

11. 51340000000 mensibus solaribus a 53433300000 mensibus lunaribus, subtractis numerus mensium intercalarium Calpae spatio exhibetur.

12. E diebus solaribus una cum diebus intercalaribus numerus dierum lunarium, et e diebus lunaribus, diebus expungendis subtractis, numerus dierum civilium invenitur.§

* In subjunctâ tabulâ præcedentes valores exhibentur.

Planetæ.	Revoluciones.	Rev. Apseudum.	Rev. Nodorum.
Sol,	43200000000	450	
Luna,	57753300000	488105858	232311165
Mercurius,	1793698984	292	263
Venus,	7022389492	332	521
Mars,	2296828522	855	63
Jupiter,	364226455	653	893
Saturnus,	146567298	51	584
† Anni spatio Solis revolutiones diurnæ, =		1577916450000 4320000000	= 365. 15. 30. 22. 30.
———— Sphæræ —————, =		1581223645000 4320000000	= 366. 15. 30. 27. 30.
Mensis lunaris, =		1577916450000 57753300000	= 27. 18. 46. 25.
‡ Yugæ spatio menses lunares, .. =		57753300000 — 4320000000	
———— intercalares, .. =		5343330000 5343300000 — 51340000000	
		1593300000	
§ Dies Solar. =		155520000000	
Dies Lun. Interc. =		4779900000	
Dies Lun... .. =		160299900000	
		— 25082550000	
Dies Civil. =		1577916450000	

13. E differentiâ inter Solis et Lunae revolutiones numerum mensium lunarium reperies. Diebus sideralibus a numero dierum lunarium subtractis, quot dies expungendi sint, videbis.*

14. Subtrahendo Solis revolutiones, per 13 multiplicatas, a Lunae revolutionibus, mensesi ntercalares reperiuntur. Differentia inter planetarum apsidum revolutiones addita, revolutiones argumenti anomaliae exhibet.

III.—AHARGANA.

1-3.—Annis solaribus, Calpæ spatio præterlapsis, per 12 multiplicatis, menses anni currentis addantur; summa, per 30 multiplicata, additis diebus lunaribus, separatim ponatur; hoc numero, per 1593300000 menses intercalres multiplicato, et per 1555200000000 dies solares diviso, menses intercalcares Aharganæ solaris inveniuntur; dein his mensibus intercalaribus, in dies conversis, ad numerum separatim positum (Aharganam solarem) additis, dierum lunarium numerus innotescet; hic separatim ponatur, dein multiplicetur per 25082550000, dies lunares expungendos, et dividatur per 160299900000, dies lunares, quo facto dies periodi expungendi inveniuntur; his a numero dierum lunarium (separatim posito) subtractis, numerus dierum mediorum solarium civilium datur. Residuum mensium intercalarium et dierum lunarium expungendorum in computandâ Aharganâ haud respicitur.†

4. Numero dierum (Ahargana) per planetæ revolutines multiplicato, et per dies civiles diviso, media in Zodiaco planetæ positio, gradibus,

* Revolut. Lunæ,	..	..	..	..	..	..	..	=	5775300000
Revolut. Sol.	..	..	..	..	..	..	..	=	432000000
Menses Lun.	..	..	..	..	..	..	..	=	53433300000
Dies Lunares,	..	..	..	..	..	..	..	=	1602999000000
Dies Sideral.*	..	..	..	..	..	..	..	=	158236450000
Dies Expung.	..	..	..	..	..	..	..	=	20762550000

† 1. Methodus Aharganæ computandæ hæc est:

Annis, Calpæ spatio præterlapsis, in dies conversis, dies anni currentis addantur, quo facto numerus dierum solarium (Ahargana solaris) datur. Numerus dierum intercalarium addendus est; hæc via regulâtrium terminorum inveniuntur: Calpæ spatio si x menses intercalares erant, quot menses intercalares annis præterlapsis. His mensibus intercalaribus Aharganæ solari additis, Ahargana lunaris proditur, de qua dies expungendi deducendi sunt. Hoc modo eos invenias: Si Calpæ spatio x dies expungendi, Ahargana solari quot.

His ab Aharganâ solari subtractis, numerus dierum solarium civilium exhibetur. Exempli gratia Ahargana 27mæ. Chaitræ anni Shacæ regis 1764 (A. D. 8 vi. Apr. 1844) inveniatur.

etc. determinata, proditur, dum Sol medius in Lunæ urbe Marti vicinum locum tenet.

5. Residuo* dierum expungendorum, per 13149000000† diviso, gradus minuta, etc. dantur; cui dies lunares, per 12 multiplicati, si addantur, Lunæ positio, si subtrahantur, Solis positio exhibetur.

6. Residuo dierum expungendorum, per 27110000000 diviso, Calæ, etc. producuntur, quod Solis Dhana (plus) nominatur; idemque, per 13 multiplicatum, trigesimā quintā ipsius parte additā, Luna Suā dicitur. Dies lunares, a Chaitra mensi etc. elapsi, per 13 multiplicati, Solis et Lunæ Ansæ sunt. Numerus, qui e divisione reliquarum mensium intercalarium et mensium lunarium producitur, si subtrahatur, Suā, si addatur, Dhana est.

7-8. Dies solares civiles per planetæ dies civiles, Calpæ spatio præterlapsos, multiplicentur, et per 131493037500 dividuntur; quo facto Rashi (Zodiaci signa) producuntur; inde signis, quæ Sol tenet, deductis, planetæ positio in Zodiaco determinatur. Docti autem aliis quoque methodis uti pollent.

1. Anni elapsi acreatione usque ad Shacam regem,	1972947179
----- a Shacarege ad 27 men. Chaitr. 1764,	1764
	<u>1972948943</u>
multiplicentur per	<u>× 12</u>
	23675387316
addantur,	<u>11</u>
2. Menses Solares,	23675387327
multiplicentur per	<u>× 30</u>
	710261619810
addantur,	<u>27</u>
3. Dies Solares,	710261619837
Addantur menses intercalares, in dies conversi :	
15552000,00000 : 15933300000 : 710261619037	
Dies Calpæ Sol. Mens. Calpæ Interc.	
15933300000 × 71261619837	
= 15552000,00000	= 727661933
Dies Intercalares = 727661933 × 30 =	.... 21829857990
4. Dies Lunares,	732091477827
Deducuntur dies expungendi.	
1602949000000 : 25082550000 : 732091477827	
Dies Calpæ Lun. Dies Calpæ Exp. Aharg. Lun.	
25082550000 + 732091477827	
1602999000000	= 732091477827
5. Dies Solares Civiles præterlapsi, =	-11455229290
	720636248537

* Vid. versum tertium; residuum dierum expungendorum loco citato non receptum erat.

$$\dagger 1577916450000 : \text{Residum, D. E.} \times 12 = \frac{\text{Resid. D. E.}}{131490000000}$$

9-10. Ut planetarum revolutiones e mensibus lunaribus, intercalariis et expungendis, vicissim additis et subtractis, inveniuntur, ita regulâ trium terminorum, e Solis diebus civilibus, subtractis et additis, inveniuntur.

11. Differentia positionis planetæ, duas revolutiones transgressæ, addatur, dein subtrahatur; summa superiorem, differentia inferiorem Apsidem indicat.

12. Differentia inter duas planetæ revolutiones subtracta, Adruta, sive inferior, eademque addita, superior Apsis est.

13. Planetâ a Superiori Apside subtractâ, ejus anomalia media (distantia Solis a superiori Apside) invenitur, anomaliâ mediâ subtractâ, planetæ positio datur.

14. Planetæ revolutiones una cum gradibus, minutis, per dies civiles multiplicentur, dein per ejus Calpæ revolutiones dividantur, quotus Ahargana est.

15-16. Dies civiles elapsi per dies expungendos multiplicentur, dein per dies civiles* dividantur; quofacto dies expungendi præterlapsi inveniuntur; his Aharganæ additis, numerum dierum lunarium perspicias; hic numerus separatim ponatur, per menses intercalares multiplicetur, et per dies lunares dividatur; quotus menses intercalares elapsos præbet, quos in dies conversos, si de diebus lunaribus deducas, numerus dierum solarium invenitur; his, per 30 divisus, numerus mensium, et postremo, per 12 divisus, annorum Calpæ spatio invenitur.†

17. Dierum numerus a Cali Yugæ initio præterlapsorum, a die Veneris computandus est; si planeta hâc dierum numero determinata, ipsius positioni initii Cali Yugæ addatur, planeta anni regens invenitur.

18-19. Initio Cali Yugæ Martis ceterarumque planetarum locus in Zodiaco, Solisque et Lunæ superior aphis, et Lunæ nodus, Bicalis determinata, talis erat 3370,1944, 4666,4406, 1016064, 844214, 744422.‡

* Calpæ spatio clapsos.

† Calculationis methodus est reversa No. 1-3 quos vide.

‡ Hi valores de gradibus Zodiaci deducendi sunt: exempli gratia Martis locus erat 3370 Bicalæ=56' 10"

12. 30. 60. 60
56. 10

11 R. 30 As. 3 C. 50 Bs. Martis positio.

Mars.	Merc.	Jov.	Ven.	Sat.	S. A. S.	L. A. S.	L. N.
11	11	11	11	11	2	4	5
29	27	29	28	28	17	5	3
3	24	27	42	46	45	29	12
50	29	36	14	34	36	46	48

CAPUT IV.—PLANETARUM ORBITAE.

1. Astronomiae periti globi cœlestis circumferentiam 18712069-200000000 Yajanis circumscribi affirmant; alii hanc Bramhæ ovi circumferentiam esse, alii, Puranorum gnari, hanc distantiam inter clarum et obscurum montem esse contendunt.

2. Quicumque circuli qualitates clare sciunt, sphaerae circumferentiam, quâ Solis radii obscuritatem destruunt, cognoverunt.

3. Num Bramhae ovum illius magnitudinis sit necne, non quaeritur. Veteres quidem, quot Yajanos planetae Calpae spatio percurrerent, computando, Planetarum orbitas definiebant, haec nostra opinio.

4. E sphaerae circumferentiâ, per planetarum revolutiones (Calpae tempore) divisâ, earum orbitae inveniuntur; in suâ ipsius orbitâ planeta Yajanos, sphaerae circumferentiâ definitas, in perpetuum revolvitur.

5. Astronomi Solis orbitam $4331397\frac{1}{2}$, Lunae 324000, Zodiaci circumferentiam 259889850 Yajanos esse affirmant.*

6. Sphaerae circumferentiâ, per Calpae dies civiles divisâ, planetae motus diurnus invenitur; planetae $11858\frac{3}{4}$ Yujanos, per suas orbitas quotidie moventur.†

7. Ahargana, per 9921 multiplicata et per 25419 divisa, de Aharganâ per 11859 multiplicatâ deducatur, quo facto, Yajani planetae praeterlapi remanent.

$$* \text{ Sol} = \frac{187120692000,000,00}{432000,0000} = 4331497\frac{1}{2}$$

$$\text{Luna} = \frac{1871 \dots}{57753300000} = 324000$$

$$\text{Zodiacus} = \frac{1871 \dots}{7200000} = 259889850$$

$$\dagger \text{ Planetarum Motus Diurnus} = \frac{1871 \dots}{157791645} = 11858\frac{3}{4}$$

8. In planetarum orbitis computandis apsidem et nodum non respiciet; at Solis orbitam ejusdem magnitudinis esse censent ac Mercurii et Veneris orbitas; quare in iis computandis orbita apsidis et nodi secundum Solis motum fundamento erit.

V.—PLANETA, ANNI REGENS.

1.—Numerus annorum, Calpae spatio elapsorum, separatim per 2, 4, 3 multiplicetur; producta per 8 dividuntur, quo facto dies, Dandae, etc. inveniuntur; his annorum numero additis, Sole praecedente, planeta, anni regens, reperitur.*

2. Ex annis Calpae praeterlapsis, separatim 4, 120 et 9,600 divisus, dies, Dandae, etc. fiunt.†

3. Anni (Calpae) una cum suâ ipsorum sexagesimâ parte, addantur annis, per 30 multiplicatis et per 160 divisus; numerus, sic ortus, ab annis elapsis subtrahatur; quo facto dies expungendi inveniuntur.‡

4. Dies, etc. per 3 multiplicentur, sua ipsorum 400ma. pars subtrahetur, quo facto 30mae. annorum parti addentur.§

* Annus sol. civ. = 365. 15. 30. 22. 30. — 0.15. 30. 22. 30 quodsi per 8 multiplicetur, 2 ds. 4 dae. 3 Ansæ producuntur, quare si Ahargana gradatim 2, 3, 4 multiplicetur, per 8 dividatur oportet; dies remanentes, per 7 divisi, anni regentem exhibent.

$$\dagger \text{ 15 Dandae } \times 4 = 1 \text{ dies } \quad \frac{120}{2} \text{ Dandae } = 1 \text{ dies.}$$

$$\frac{216000}{22\frac{1}{2}} \text{ Calae } = 9600 \text{ Calae } = 1 \text{ dies.}$$

$$\ddagger \text{ Calpae Annis. D. Expung. } 4320000000 : 25088550000 : 1.$$

Anni D. E = 5. 48. 22. 7. 30.—5 diebus neglectis, 48 dandis, etc. de unitate deductis, remanet 0. 11. 27. 52. 30. quo per 160 multiplicato, 31 dies 1 danda producuntur, quo facto haec proportio datur:

$$160 \text{ A} : 31 \text{ dies. 1 danda} : \text{A. E. 1 danda} = \frac{1}{60} \text{ dies. His valoribus substitutis.}$$

$$\text{D. E.} = \text{A. E.} - \left(\text{A. C.} \times \frac{\text{A. C.}}{60} \times 30. \frac{\text{A. C.}}{160} \right).$$

$$\S \text{ Unius anni dies etc. } = 0. 15. 30. 22. 30.$$

$$\text{——— dies expung. } = 0. 48. 22. 7. 30.$$

Diebus etc. per 3 multiplicatis, de d. E. subtractis, remanet 10. 1. 52.

quodsi diebus etc. addatur, D. E. inveniuntur.

$$0. 1. 52 \times 1200 = 37.$$

Quo facto haec aequatio datur.

$$\frac{\text{A. E.}}{1200} \times 37 + 15. 30. \dots \times 3 = \text{D. E.}$$

$$\text{sed } 37 = 40 - 3.$$

$$\frac{40}{1200} = \frac{1}{30} \quad \frac{3}{1200} = \frac{1}{400}.$$

5. Annus, suā ipsius 60ma parte subtractâ, per 160 dividatur; dein ab anno sua ipsius quinta pars subtrahatur, utroque numero juncto, dies expungendi inveniuntur.*

6. Dies, Dandae, etc. una cum diebus expungendis, addantur annis, per 10 multiplicatis and per 30 divisis, quo facto menses intercalares inveniuntur; residuum, a quo dies interpungendi, Dandae, etc. subtrahantur, Suddhi dicitur.†

7. Auni separatim per divisores 32 at 30 dividantur; utroque numero juncto, anni, per 11 multiplicati et per 30 divisi, addantur, unde menses intercalares producuntur; residuum, subtractis diebus expungendis, Dandis, etc. Suddhi dicitur.‡

8. Differentia inter menses intercalares et annos elapsos, per 2 multiplicata, addatur diebus expungendis elapsis, per 7 divisis; de quo Shuddhi deducta et per 7 diviso, quem tali modo invenies numerum, anni regens, Soli praecedente, est.

9. Si reliquae mensium intercalarium Dandæ, etc. de Dandis, etc. priorum dierum deducuntur, Dandæ, etc. reliquorum dierum expungendorum inveniuntur.

$$* \text{Unius Anni D. E.} = 0. 48. 22. 7. 30.$$

$$48 \text{ d.} = \left(\frac{1}{60} - \frac{1}{5} \right) \text{ d.} \quad (\text{ies.})$$

$$\text{remanet } 0. 0. 22. 7. 30.$$

$$\left(0. 0. 22. 7. 30 \right) \times 160 = 0. 59 = 1. \text{ d.} - \frac{1}{60} \text{ da.}$$

$$\text{D. E.} = \left(\text{A. E.} - \frac{\text{A. E.}}{60} \right) : 160 + \left(\text{A. E.} - \frac{\text{A. E.}}{5} \right)$$

$$† \text{Unius anni D. C.} = 365. 15. 30. 22. 30.$$

$$\text{———— D. E.} = 0. 48. 22. 7. 30.$$

$$\text{———— D. L.} = 371. 7. 52. 30.$$

$$\text{———— D. I.} = 11. 3. 52. 30.$$

$$\text{M. I.} = \frac{\text{A. E.} + 10 + \dots}{30}$$

$$‡ \text{Unius anni D. E.} = 11. 3. 52. 30.$$

$$= 11 + 0. 3. 52. 30.$$

$$(0. 3. 52. 30) \times 480 = 31 \text{ d.}$$

$$31 = 16 + 15.$$

$$\frac{480}{16} = 30. \quad \frac{480}{15} = 32.$$

His valoribus substitutis.

$$\text{M. I.} = \frac{\left(\frac{\text{A. E.}}{16} + \frac{\text{A. E.}}{15} + \text{A. E.} \times 11. \right)}{30}$$

10. Si anni elapsi per planetarum revolutiones, Calpae spatio elapsas, multiplicentur et per Calpae annos dividantur, revolutiones, etc. notorum, apsidum et planetarum, fine revolutionis solaris determinantur.

11. Mensium intercalarium diebus reliquis, etc. per 12 multiplicatis, Lunae locus in Zodiaco, signis, gradibus, minutis, etc. definita, determinatur.

12. Diebus, etc. supra dictis, pro Cali Yugae annis elapsis computatis, anni regens a die Veneris calculandus est, et planetarum loci fixi locis, quos initio Cali Yugae tenebant, addendi sunt.

13. Dandis, etc. suae ipsarum 20mae parti junctis, dies in computandâ Aharganâ addendi inveniuntur.

14. De diebus lunaribus, a Chaitra mensi ante Idus elapsis, Shuddes deducantur, residui 702da pars addatur, et per 64 dividatur; quotus a diebus expungendis subtrahatur, quo facto, Ahargana anni regentis invenitur.

15. A quibus diebus lunaribus Shuddhi non subtracta est, eorum Ahargana Chaitra mensi prior computanda est; planetae, locis prioris anni additis, secundum Shuddhim antea determinatam computentur oportet.

16. 60mâ parte de Aharganâ deductâ, Solis locus una cum gradibus definitus est. Aharganâ, per 3 multiplicatâ, et per 22 divisâ, Calae, Bicalae, etc. inveniuntur.*

17. Soli una cum gradibus, separatim posito, si dies lunares, per 12 multiplicati, addantur, Luna determinatur; sin autem dies expungendi, per 10 multiplicati, de Sole, 7mâ ipsius parte additâ, deducantur, Luna unacum Calis invenitur.

18. Aharganae dimidium per 3 multiplicetur, 17ma ipsius pars subtrahatur; additâ Martis positione fixâ una cum gradibus, minutis, etc. Mars invenitur.

19. Ahargana, per 3 multiplicata, separatim ponatur; quo facto per 7 multiplicetur et per 130 dividatur; summa et productum jungantur;

* Motus planetarum diurnus in commentario hoc modo definitur.

Sol.	Luna.	Mars.	Mercurius.	Jupiter.	Venus.	Saturnus.	L. A. S.	L. N.
0	13	0	4	0	1	0	0	0
59	10	31	5	4	36	2	6	3
8	34	26	32	56	7	0	40	10
10							33	48
21	53	28	18	9	44	24	56	20
33	0	3	28	9	39	0	..	..

summa, additā positione fixā, Mercurii positionem una cum gradibus, etc. exhibet.

20. Aharganā, per 12×71 divisā, fixus Jovis locus secundum plus et minus graduum, et minutorum proditur.

21. Aharganā, per 10 et 88 divisā et Lunae loco fixo additā, Lunae apsis superior datur.

22. Aharganā per 30 multiplicatā et per 566 divisā, minuta progrediuntur; idem numerus, plus fixi Lunae loci Lunae nodus est, quem alii astronomi Rahum vocant.

23-24. Aharganā, per 13 multiplicatā, et gradatim per sequentes numeros divisā (viz. 101461, 151787, 190833, 24436, 1203400, 62416, 2990000, 898000, 1886800,) gradus, minuta etc. Solis ceterarumque planetarum produntur.

25. Numerus, Lunae gradus &c. definiens per 20 multiplicetur et separatim ponatur; fixae planetarum positiones si illis numeris addantur, Sole precedente, gradatim planetae una cum gradibus, minutis, etc. exhibentur.

27. Gradus, etc. ex Aharganae computatione progredientes, medios esse monere velim.

28. Planetae semper per Yajanos supradictos moventur, quod signis minutorum, etc. artificiali globo inscriptis apparet.

29. Quanquam planetarum orbitae, gradibus, minutis, etc. dividuntur, verum tamen minoris circuli gradus etc. minores, majoris gradus majores esse scias velim. Quare planetae a Lunā ad Saturnum secundum orbitarum magnitudinem gradatim diminutā celeritate circumvolvuntur.



Ray Mus.

1. *Sciuropterus Chrysotrix*. mihi.
 2. *Sciuropterus Senei* mihi
- Habitat Central and Northern
regions of the Hills. B H H

Summary description of two new species of Flying Squirrel. By
B. H. HODGSON, Esq. B. C. S. With a colored Plate.

The Editors of the Journal in publishing this brief article, and the plate which accompanies it, which is an exact *fac-simile* of the beautiful drawing made by Mr. Hodgson's Native artist, deem it an act of justice to that gentleman, to themselves as Editors and Officers of the Asiatic Society, and to their contributors, to explain how it has happened, that though the drawing has been in their possession since July 1842, it only now appears. It was sent to them from Katmandoo by Mr. Hodgson under the above date, with a request that the Society's Zoological Curator would add such remarks as he might think proper.

The paper was handed to Mr. Blyth, who also then saw the drawing, and as soon as the first impressions could be coloured, they were placed by the Editors in his hands. The colouring of the whole of the plates, (a very slow process in India,) was finished in August 1843.

The Editors in May 1844, had the paper returned to them with the following announcement from Mr. Blyth:—

“The truth is, both of them are species *already* described; viz. the *Pteromys nobilis* and the *P. caniceps* of Gray, and it would not be creditable to the Journal that they should be published under Mr. Hodgson's new names.”

They do not feel competent to decide on a question of priority of discovery nor of identity of species should any arise, and are herein only anxious to prove their earnest wish to do justice, both by liberal care and by early publication, to the labours of the correspondents of the Asiatic Society, and supporters of the Journal. The extract pointed out to the Editors by Mr. Blyth will be found in the note.*

RODENTIA.

GENUS SCIUROPTERUS.

1. Sp. new. *S. Chrysotrix*, mihi. General structure and size of *Magnificus*. Above intense ochreous chesnut, mixed with black and divided down the spine by a golden yellow line, and margined externally by

* Extract from the *Annals and Magazine of Natural History* for December 1842,
 p. 262 and 263.

Sciuropterus nobilis.—Bright chestnut-brown, with yellow tips to some of the hairs, pale rufous beneath; the top of the head, the shoulders, and a narrow streak down the middle of the upper part of the back pale fulvous; parachute large.

Hab.—India, Dargellan, Mr. Pearson, Mus. Ind. Comp.

Sciuropterus caniceps.—Blackish brown, varied with red bay; hairs long, dark blackish, with red bay tips; out-side of the legs redder, beneath reddish yellow; head iron-gray with longer black interspersed hairs; throat white; chin black; small lunate spot on the upper edge red, and roundish spot near the base of the ears bright-red; tail flattish, black with some reddish tipped hairs, fewer near the end. Body and head, nine inches; tail, eight and a half.

* *Hab.*—India, Dargellan, Mr. Pearson, Mus. Ind. Comp.

the same hue, which also spreads over the shoulders and thighs. Below, and the flying membrane with the lower limbs and tail, intense orange red, deepening into ochreous on the margin of the membrane, and on the limbs ophthalmic and mystacial regions defined by black; chin dark, cheeks mixed, a pale golden spot on the nasal bridge. Two inches of end of tail black. Ears outside concolorous with lower surface. Tail longer than the animal and cylindric. Pelage thick and soft, and glossy, woolly and hairy piles: average length of latter an inch and one-third. Snout to rump fifteen inches. Head to occiput (straight) three inches and three-eighths; tail, seventeen inches and a half; less terminal hair, fifteen inches and a half, ears one inch and one-third. Palma, less nails, one inch and seven-eighths. Planta, less nails, two inches and seven-eighths. Habitat, hills generally, but chiefly the central and northern regions. Sexes alike. *Remark*.—In colour much like *Magnificus*, but invariably distinguished by the pale golden line down the spine.

2. Sp. new. *Senex*, nob. General structure as above, but size smaller, and fur longer. Entire head, pepper and salt mixture, or iron grey: orbits and base of ears behind, intense burnt sienna. Entire body above and the tail and flying membrane, a full clear mixture of golden and black hues; shoulders not paled. Limbs intense aurantine ochreous. Margin of the parachute albescent, and neck below the same. Body below with parachute there, orange red. Tip of tail black as usual. Ears nearly or quite nude and tail subdistichous or flatter. Pelage longer and scarcely so fine as in *Magnificus* and in *Chrysotrix*. Longest piles an inch and three-quarters, and less glossy. Snout to rump fourteen inches, head two inches and seven-eighths, ears one inch and a quarter. Tail only fifteen inches, with hair sixteen inches and a half. Palma one inch and eleven-sixteenths. Planta two inches and a half.

Habitat as before.

Remark.—Differs from the two larger species of these hills, and approaches to the least, or *Alboniger*, by the less cylindric form of the tail and under-ears. Its pelage is coarser and less glossy than in any of the other three, but is fully as warm and thick.

July, 1842.

Proceedings of the Asiatic Society.—JANUARY, 1844.

(Wednesday Evening, the 3rd January, 1844.)

The monthly Meeting of the Society was held at the rooms on Wednesday evening, the 3rd January, at the usual hour. The Honorable W. W. Bird, President, in the chair.

The election of officers for the year 1844, was the first business of the meeting, and it was agreed that those of 1843 should be requested to continue. The name of Dr. A. Sprenger, B. M. S. was added to the Committee of Papers.*

R. Macdonald Stephenson, Esq. proposed at the last meeting, was ballotted for and elected. The usual communication was ordered to be made to him.

Proposed as an Honorary Member by the Hon'ble the President, and seconded by the Secretary :—

John, Prince of Saxony, brother to the reigning king.

In proposing this illustrious personage as an Honorary Member, the Honorable the President and Secretary stated, that they had done so not only in consequence of his general and well-known proficiency in literary and scientific pursuits, but specially with reference to his high attainments as a Sanscrit scholar, and his unvarying patronage on all occasions of oriental scholars and oriental literature.

The Sevres Medallion of Major Rennel, presented at the meeting of November 1843, which had been framed in black marble, was now exhibited.

The Committee named at the December meeting, to settle the form of the inscriptions on the marble tablets beneath the busts, and the height of the pedestals for them, exhibited the tablets as prepared, and referred to the bust of Mr. James Prinsep, which had been placed on a temporary stand at the height they thought suitable, for the opinion of the meeting. It was resolved, that the alteration be made as proposed.

Read the following letter addressed to the Secretary by Mr. W. Prinsep :—

To H. TORRENS, Esq. Vice President and Secretary of the Asiatic Society, Calcutta.

DEAR SIR,—I have the honor to acknowledge your two letters of the 28th July, one to myself in conjunction with my brother H. T. Prinsep, Esq., the other to Sir Edward Ryan, with a request to procure Kit Cat Portraits of each of these gentlemen.

I have seen these gentlemen, and we are next week to decide upon the artist and time of sitting, regarding which I shall have the pleasure of addressing you by

* N. B.—The names of Officers and Members of the Society, as they stand at the commencement of 1844, will be found at the end of the present Number

next mail; in the meantime, as it is usual to pay down to the artist half the cost upon the first sitting, and as I believe they will cost Eighty Guineas each, I shall be glad if you will at once remit the amount necessary for this purpose. Yours faithfully,

London, 14th November 1843.

WM. PRINSEP.

Ordered, that the remittance desired be made by a safe channel.

The following list of Books, presented and purchased, was read:—

Books received for the Meeting of the Asiatic Society, on the 3d January, 1844.

Meteorological Register kept at the Surveyor General's Office, Calcutta, for the month of November 1843.—From Government.

Calcutta Christian Observer, new series, vol. 5, No. 49, January 1844.—From the Editor.

Oriental Christian Spectator, 2d series. Bombay, December 1843, vol. 4, No. 12.—From the Editor.

Jameson's Edinburgh new Philosophical Journal. Edinburgh, 1843, vol. 35, No. 69.—From the Editor.

London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science.

London, 3d series, vol. 22, Nos. 147, 148; vol. 23d, Nos. 149, 150.—From the Editor.

Proceedings of the Geological Society of London, 1842-43, vol. 4, pt. 1st, No. 92, and Index to vol. 3, November 1838 to June 1842.—Presented by the Society.

List of the Members of the Geological Society of London, 1st March 1843.

Society for the Encouragement of Arts, Manufactures, and Commerce. Premiums for the Sessions, 1843-1844, 1844-1845. London 1843.—Presented by the Society, (two copies).

Jerdon's Illustrations of Indian Ornithology. Madras, 1843, No. 1, (two copies).—Purchased.

Graberg de Hemso, Ultimi Progressi della Geografia. Milano, 1843.—Presented by the Author.

Lassen de Taprobane insula veteribus cognita Dissertatio. Bonnæ, 1842. Pampb.—From the Author.

Moise de Khoréne, Auteur du ve. Siecle. Histoire D'Armenie, Texte Armenien et traduction Française par P. E. Le Vaillant de Florival. Venise, 1841, 2 vols. 8vo.—Presented by J. Avdall, Esq.

Bulletin de la Societe de Geographie, 2d serie. Paris, 1842, tome 18.—Presented by the Society.

Journal Asiatique ou Recueil de Memoires, 3d serie. Paris, November, December 1842, tome 14, No. 79, et 4th serie. Mars, 1843, tome 1, No. 3.—Presented.

Annales des Sciences Physiques et Naturelles, D'Agriculture et D'Industrie. Lyon, 1838-40, 3 vols. 4to.—Presented.

Journal des Savants. Paris, 1843, Avril, Mai, et Juin.—Purchased.

The Librarian also presented a condensed report of the Books and Pamphlets added to the Library during the year 1843, which was ordered to be printed, and will be found at the conclusion of the Proceedings.

Dr. A. Sprenger submitted a specimen sheet of the Dictionary of Suffectic Terms now printing by the Society under his supervision.

Read the following letter from Messrs. W. and H. Allen and Co. the Society's Agents and Booksellers:—

To H. TORRENS, *Esq. Secretary to the Asiatic Society of Bengal.*

SIR,—We have received your favor of the 18th July last, enclosing a bill of lading for a case of Books for Mr. Konig, and also a letter for that gentleman has been received, and shall have our attention on the arrival of the Ship "*Cuthbert Young*," by which vessel the box is consigned to us.

Your favor of the 28th July, enclosing a letter for Sir Edward Ryan and H. T. Prinsep, Esq., also one for H. T. and W. Prinsep, Esqrs. have both been delivered to the latter gentleman, the two former being absent from London at the time of the receipt of the letters by us.

Your further favor of the 7th August, enclosing a bill of lading for 25 copies of the Mahabharata, complete, and the same No. of the Index only, shipped by the "*City of Poonah*," has duly come to hand, but the arrival of the vessel is not expected for some time.

We have the honor to be, Sir,

London, 31st October, 1843.

Your most obedient servants,

W. H. ALLEN & Co.

Read the following letter and enclosure from the Librarian:—

To H. TORRENS, *Esq. Secretary, Asiatic Society.*

SIR,—I have the honour to forward you the accompanying note of Messrs. Thacker and Co. who apply for a deduction of 25 per cent. on the Tihetan books, which appears to have been formerly granted to them by the Secretary of the Society on the Asiatic Journal.

In laying this request of Messrs. Thacker and Co. before the Committee, I would beg to suggest to them to pass a rule, respecting the sale of all their publications to booksellers, and should such a deduction be conceded, to ask in return the same allowance from them.

I have the honour to be, Sir,

Your most obedient servant,

Asiatic Society, 21st December, 1843.

E. ROER.

Enclosure: Messrs Thacker and Co's. compliments to Dr. Roer, and beg to state, that they have been in the habit of paying only 1-8 per No. for the Asiatic Society's Journal, the usual charge being 2, from which a discount of 25 per cent. is allowed to them. Messrs. Thacker and Co. will thank Dr. Roer to send the voucher, as they think they only received Nos. 47 and 48. They will further feel obliged, if he will kindly take off the usual allowance for the two Tihetan books.

Calcutta, 18th December, 1843.

After some conversation it was agreed on, that the allowance desired, should be made, upon condition that it should be reciprocal.

Read the following letter from the Secretary to the Société Royale d'Agriculture, &c. &c. of Lyons:—

Le Secrétaire-Archiviste de la Société Royale d'Agriculture, Histoire Naturelle et Arts utiles de Lyon.

MONSIEUR LE PRESIDENT.—Je suis chargé au nom de la Société Royale d'Agriculture de Lyon de vous offrir la collection de ses Annales pour la Société du Bengal.

Nous nous estimerons heureux si la compagnie savante que vous présidez jugera le recueil assez digne d'intérêt pour nous honorer d'un échange de ses travaux.

Veillez agréer, je vous prie, Monsieur, le sentimens de haute consideration avec lesquels.

J'ai l'honneur d'être,

Lyon, le 1ere Juin, 1841.

Votre tres humble et obeissant serviteur,

A Monsieur le Président de la Société du Bengale.

G. MULSANT.

Ordered, that a copy of the Journal be regularly dispatched to this Society.

Read the following letter from Capt. Bonnevie :—

To H. TORRENS, Esq. Honorary Secretary to the Asiatic Society.

SIR,—I had the honour in April or May last, to forward you a letter from the University of Christiania in Norway, accompanied by various specimens of natural history, minerals, coins, books, &c. &c. which you did me the honour favorably to acknowledge, expressing your willingness to readily reciprocate. Desirable opportunities now offer themselves for the dispatch of any variety which your Society may be pleased to present to the Christiania University by vessels bound to London, and any communication addressed to the Swedish and Norwegian Consul General in that port, Chas. Tottie, Esq. will be duly dispatched, or if forwarded to my friends, Messrs. J. Mackey and Co. of this city, they will be duly cared for, and forwarded to their destination.

I have the honour to be, Sir,

Calcutta, 30th December, 1843.

Your most obedient servant,

C. S. BONNEVIE.

The Secretary was requested to inform Capt. Bonnevie, of what had been already dispatched to the University from the Library and Zoological Department, and what was in train of being so, from other departments.

Read the following letter from J. Avdall, Esq.:—

To H. TORRENS, Esq. Secretary, Asiatic Society.

MY DEAR SIR,—Herewith I beg to send you, for presentation to the meeting of the Asiatic Society, a copy of the History of Armenia, by Moses Khorenensis, translated into French by P. E. Le Vaillant De Florival, and printed with the Text at Venice in 1841, 2 vols.

I remain,

Your's faithfully,

Calcutta, 30th December, 1843.

JOHANNES AVDALL.

Messrs. Ostell and Lepage having sent two Numbers of the Zoology of the Voyage of H. M. S. *Sulphur*, Capt. Belcher, for inspection, a subscription for one copy on the part of the Society was authorised.

Read the following letter, accompanying two Models of a Boat and Float which were on the table :—

W. H. TORRENS, *Esq. Secretary to the Asiatic Society.*

SIR,—Having two models of Steamers on the Archimedean principle, I am desirous to place them in the Museum, with the view of exposing them to the gentlemen of Calcutta, who may honour that place with their presence, in the hope of meeting with encouragement to get up a vessel on this plan for inland navigation, in which I would wish to take share and devote my time to the furtherance of, after May next; otherwise I would dispose of them at a moderate price; and shall feel obliged by your kindly allowing them to be placed there for a short time.

I shall be happy at any time to set them in motion in a trough of water, for the satisfaction of gentlemen wishing to see them act. I remain, Sir,

Your obedient servant,

GEORGE NICKS, *Engineer,*

Hon'ble Co's. Service, Kidderpore.

Calcutta, 23rd December, 1843.

Read the following letter from G. Buist, Esq. Bombay.

DEAR SIR,—The Bengal Asiatic Society appears to be under a misapprehension as to there being any reprint of the Transactions of the Bombay Branch, there is none such. I believe the new issue for two years past, in process of publication, has always been forwarded to Calcutta.

The misapprehension may have arisen from the circumstance of the Bombay Geographical Society being presently engaged in reprinting their transactions: these have been desired to be sent to you, and I shall take care that they are duly forwarded the moment they have passed through the press. The printer is now far advanced with them.

The reports of the Observatory formerly applied for through Government, will be completed very shortly, and sent to your address.

I have the honour to be, Sir,

Your most obedient servant,

Bombay Observatory,
23th November, 1843.

GEO. BUIST,
Secretary to the Geographical Society.

A catalogue of the additions to the Library was presented by the Librarian, and ordered to be printed with the January (the present) number of the Journal. Account sales of Oriental publications was also submitted as follows :—

Oriental Publications, &c. sold from the 9th January up to the 14th December, 1843.

	Rs.	As.
Mahabharata, vols. I to IV, 8 copies each,	320	0
Index to ditto, vols. I, II, III, 6 copies each, and vol. IV, 7 copies, ..	37	8
Naishada, 3 copies,	18	0
Sausruta, vols. I and II, 1 copy each.	8	0
Hariwansa, 1 copy,	5	0
Sanscrit Catalogue, 2 copies,	2	0
Futawe Alemgiri, vol. I, one copy; vol. II, one ditto; vol. III, 2 ditto; vol. IV, 8 ditto; vol. V, 10 ditto; vol. VI, 9 ditto,	250	0
Carried over,	640	8

Brought over,	..	..	..	..	..	640	8
Jawame-ul-Ilm-ul-riazi, one copy,	..	..	..	..	..	4	0
Khazanat-ul-Ilm, one copy,	..	..	..	..	..	8	0
Sharaya-ul-Islam, 2 copies,	..	..	..	..	..	16	0
Asiatic Researches, vols. XVIII, 1 copy; XIX, 1 ditto; XX, 2 ditto,	..	..	..	..	..	40	0
Journal of the Asiatic Society, Nos. 52, 56, 61, 65, 84, 90, 103 to 119, 125 to 130, and Supplement to No. 126, one copy each,	..	..	..	..	..	51	8

Total Rupees 760 0

E. ROER,

Calcutta, the 2d January, 1844.

Librarian, Asiatic Society.

Read report of the Curator Museum of Economic Geology, for the month of December.

REPORT OF THE CURATOR MUSEUM ECONOMIC GEOLOGY AND GEOLOGICAL AND MINERALOGICAL DEPARTMENT, FOR THE MONTH OF DECEMBER.

Mineralogical and Geological.—I have been unable to complete, for this month, the arrangement of the specimens brought by Capt. Russell from the Cheduba Archipelago, but I trust to do so by next month. I have moreover not yet obtained Capt. Russell's detailed report.

Capt. Newbold, M. N. I. has sent us from Kurnool three small, but very curious, specimens of "organic bodies in a vein of chert in the Kurnool limestone." When examined by a magnifier, these are seen to be minute nummulites, more or less silicified. None of them effervesce with acids, though the matrix in the less compact looking parts does so. It is probable that the limestone would be also found to contain these bodies, either at the spot these were found, or in the vicinity of it. In a geological point of view, the presence of the fossils of so recent a formation in that quarter of India is highly interesting.

Museum Economic Geology.—Capt. Shortrede has, at my request, kindly sent us a box, containing eight specimens of tolerable size of the lithographic stones from near Rewah, of which impressions and specimens were presented at the September and October meetings; these are now in the hands of Mr. Black for trial and report.

Mr. W. C. Drew has presented us with a mineral, which though common enough in itself, is from its locality of considerable interest. It is a fragment of argentiferous lead ore from Adelaide in Australia: of which I learn that so large a quantity as eight tons had been sent from that port to Sydney for smelting.

Capt. Oldfield, Executive Engineer of the Saugor division, has presented us with a very interesting set of specimens of iron ores, and other minerals from that district. His letter is as follows:—

To H. PIDDINGTON, Esq. Curator of the Economic Museum, Calcutta.

SIR,—Having been favoured by you with a copy of the printed Memorandum relative to the objects of the Museum of Economic Geology, I took the opportunity of passing through the town of Heerapoor in Bundelkund, to observe the method of smelting, and to collect some iron ores from that district.

The large specimen marked 'Heerapoor iron ore,' shews the average quality, of which the quantity is unlimited. The whole neighbourhood may be said to abound in iron, the ore is at the surface, or rather the mines are mere caves in iron rocks. The iron stone

is first broken down, and afterwards into smaller pieces of about an inch in diameter, by small hand hammers, mixed with double its weight of charcoal, and put into clay furnaces about 5 feet high and one-half in diameter, the draft is given by a hand bellows, the nozzles of which are of fine clay and require constant renewal.

The slag is drawn off by tapping the lower part of the furnace; the iron however is not completely fused, but is taken only by tongs through the top of the furnace; after withdrawal of the slag. At this stage, it is of a pale straw colour, and is at once subjected to hammering, by which it loses one-third of its weight, this hammering being continued till the iron is cool, it is then considered ready for forging. As a specimen of the manufactured iron, I send half a tawa, or scone for baking chupattees, weighing about 4lb.

I send also some specimens of iron ore kindly collected at my request for the Museum, by Lieut. Turner, 51st N. I. when that officer was on detached duty at Tendookheru, a village south of Saugor, and within a few miles of the Nerbudda. From these mines, the iron of which Col. Presgrave formed the bars for the Suspension Bridge over the Beas river near Saugor, was procured.

No. 1, is the rock of which the hills containing the ore mostly consist.

No. 2, is the ore.

No. 3, Slag.

No. 4, Iron from the furnace, unrefined by forging.

From the neighbourhood of Saugor I send specimens of Kunkur, No. 5 and 8 of which, should you have leisure, I should be glad to obtain a correct analysis.

The specimens of mortar or concrete which I send, were formed from a mixture of lime made from kunkur No. 5, with gravel and tile dust. One specimen had water poured on it a few minutes after it was mixed, and commenced hardening from that moment; the surface set very quickly; the lime used was rather stale, having been burned upwards of a month, and exposed to a damp atmosphere. It was carefully ground, however, a measure essential to the goodness of mortar made with kunkur or other hydraulic limes. I have added some specimens of limestone marked No. 6, found in masses or boulders imbedded in the black soil of the Saugor district, and a specimen of the red sandstone of that part of the country, which in many places is in laminæ sufficiently thin to be used for roofing purposes in lieu of slates. It is likewise found in slabs, used in thicknesses of 3 or 4 inches as architraves, having a bearing of from 6 to 8 and even 10 feet. This stone is likewise in general use for marble masonry, being more commonly found massive or with irregular lamination.

I take the opportunity of adding as mere matters of curiosity, at least, without reference to any building or other useful purpose in the Saugor district,

A specimen of granite from Debsor river in Bundelkund.

A specimen of a dark compact rock with the character of which I am unacquainted.* From the position in which I found it, I believe it to extend over a large tract of country in the Jhansi state on the left bank of the Debsor, at a depth of from 30 to 40 feet from the surface.

I have the honour to be, Sir,

Your most obedient servant,

J. N. OLDFIELD, Capt.

Executive Engineer, Saugor Division.

7, Russell Street, Chowringhee,

December 2d, 1843.

* It is an indurated and somewhat fibrous clay slate.—H. P.

ABSTRACT

Of the List of Books received into the Library, from the 13th January to the 6th December 1843.

Note.—The number of all the Books, received during last year, amounts to 391.

English Books.

- Annals and Magazine of Natural History. London, Nos. 62, 63, 64, 68, 69, 71, 72, 75, 76,—9 Nos.
- Archæologia, or Miscellaneous Tracts relating to Antiquities. London, 1842, Vol. xxix,—1 vol.
- Arrowsmith's Map of India. London, 1840, 1 No.
- Audubon's and Bachman's Descriptions of new species of Quadrupeds inhabiting North-America. 1 pamphlet.
- Bernier's Travels, comprehending a description of the Mogul Empire, translated from the French by J. Stuart. Calcutta, 1826, 1 vol.
- Batten's Report on the Settlement of the district of Gurhwal, in the province of Kemaon. Agra, 1843, 1 pamphlet.
- Buist's Comparative Readings of Eight Barometers. 1843, (a leaf,) 1 No.
- Calcutta Christian Observer. New Series. Nos. 37 to 40, 42 to 48, 11 Nos.
- Calcutta Literary Gleaner, 1842, Vol. i, Nos. 11 and 12, 1843-Vol. ii, Nos. 1 to 8, 10 Nos.
- Calcutta Journal of Natural Science, 1843. Vol. iv, No. 13. 1 No.
- Calendars of the Proceedings in Chancery in the reign of Queen Elizabeth. 3 vols.
- Callery's Encyclopedia of the Chinese Language. London, 1842. 1 pamphlet.
- Collection of Papers regarding the course of the Indus, and especially of its Eastern Mouth and the Branches falling into the Run, of Cutch. Calcutta, 1842, 1 vol.
- Darwin's Journal of Researches into Geology and Natural History. London, 1839, 1 vol.
- Documents relating to the Gates of Somnath. 1 pamphlet.
- Early Records in Equity. Calcutta, 1842. 1 vol.
- Francis's and Craft's Chemical Gazette. 1842, No. 1, 1 No.
- Goodwyn's Memoir of an improved system of Suspension-Bridges, on the principle adopted by Mr. Dredge. Calcutta, 1843, 1 pamphlet.
- Gould's Monograph of the Ramphastidæ, or Family of Toucans. London, 1834, 1 vol.
- Gray's List of the Genera of Birds. London, 1841, 1 vol.
- Specilegia Zoologica, pt. i, 1 No.
- Zoology of the Voyage of H. M. S. Sulphur, Mammalia pt. i. London, 1834, No. 1, 1 No.
- Gutch's Quarterly Journal, Vol. i, No. 6, 1 No.
- Hart's Report on the Trade and Resources of Kurrachee. Calcutta, 1843, 1 vol.
- Herapath's Railway and Commercial Journal, 1843. Vol. v, No. 178, 1 No.
- Ibn Khallikan's Biographical Dictionary, translated from the Arabic by Baron MacGucklin de Slane. Paris, 1842, Vol. i. 1 vol.
- Jameson's Edinburgh New Philosophical Journal, Nos. 63, 66, 67, 68. 4 Nos.
- Journal of the Agricultural and Horticultural Society of India, 1842, Vol. i and Vol. ii, Nos. 1 to 9, 1 vol. 9 Nos.
- of the Bombay Branch Royal Asiatic Society, Nos. 4 and 5, 2 Nos.
- of the Royal Geographical Society of London, 1842, Vol. xii, pts. 1 and 2, 2 Nos.

- Landers' Memoranda upon the State of Indian Bazaar Weights and Measures. Calcutta, 1843, 1 pamphlet.
- Leach's Zoological Miscellany. London, 1814-17, 3 vols.
- List of Members and Correspondents of the Academy of Natural Sciences of Philadelphia, 1 pamphlet.
- of the Fellows, Members, &c. of the Zoological Society of London. 1842, 1 pamphlet.
- London, Edinburgh and Dublin Philosophical Magazine and Journal of Science. 3d Series, Nos. 134 to 142, and 145 and 146, 11 Nos.
- Martyn's English Entomologists, exhibiting all the Coleopterous Insects, found in England. London, 1792, 1 vol.
- Meteorological Register, kept at the Surveyor General's Office, Calcutta, January to December, 1840. March, April, July and September 1841, November 1842, January to April, and June to October 1843, 26 Nos.
- Miles' Translation of the History of Hydur Naik. London, 1842, 1 vol.
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